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Atlas of Physical Oceanographic Data for Current Surge Studies on the Scotian Shelf: 1983

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Hydrography and Ocean Sciences No. 114

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90-05150/

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ABSTRACT

Sandstrom, H. and J.A. Elliott. 1989. Atlas of physical oceanographic data for current surge studies on the Scotian Shelf: 1983. Can. Tech. Rep. Hydrogr. Ocean Sci. No. 114 : iv + 379 pp.

Physical oceanographic data are presented for *CSS DAWSON* cruise 83-024. Included are the results of CTD casts, moored current meters, moored thermistor chain, BATFISH tows, acoustic backscattering charts and Doppler current profiler. The area of the cruise is in the vicinity of the Scotian Shelf edge along 63°30'W.

RÉSUMÉ

Sandstrom, H. and J.A. Elliott. 1989. Atlas of physical oceanographic data for current surge studics on the Scotian Shelf: 1983. Can. Tech. Rep. Hydrogr. Ocean Sci. No. 114 : iv + 379 pp.

On présente des données d'océanographie physique issues de la mission 83-024 du nsc DAWSON, notamment les résultats provenant de mesures CTP, du mouillage de courantomètres et d'une chaine de thermistances, du remorquage du BATFISH, de diagrammes de rétrodiffusion accoustique et de profileurs de courant Doppler. Cette mission se déroulait près du rebord de la plate-forme néo-écossaise, par 63°30' de longitude ouest.

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1.0 INTRODUCTION

This is the second in a series of atlases prepared for a program supported by PERD funding to study the incidence of large amplitude tidally generated internal waves along east coast continental shelves. It covers *CSS DAWSON* cruise 83-024, during which field data were collected in the vicinity of the shelf edge of the Scotian Gulf centered on 63°30'W. The study area is the same as for cruises 80-039, 81-042 and 82-043, which were covered in the first atlas of this series (Technical Report No. 77, October 1986).

The program was conducted from the ship *CSS DAWSON* over the period August 19-30, 1983. Two moorings were deployed and recovered. CTD, BATFISH, Ametek Straza Doppler Current Profiler, and 12 kHz Raytheon Sounder equipment were operated from the ship. Data from the previous cruises had indicated the presence of intense high amplitude internal waves, often with soliton like or internal surge type features. The source of energy for generating these internal features is the surface tide. The principal objectives of this cruise in the series were 1) to collect data that would show the mechanism whereby energy flows from the surface tide to the internal waves and then supposedly to mixing and dissipation, and 2) to compare the process with a summer time density profile with the previous data collected with a winter time density profile.

2.0 INSTRUMENTATION AND DATA REDUCTION

All data are presented in GMT and Julian calendar.

2.1 CTD

The instrument used was a Guildline Digital CTD mounted on a rosette. Two bottle samples from a number of casts were used to adjust the salinity calibration. Based on 26 calibration points, the standard deviation of the intercomparison was 0.024‰. The thermometer data were not of high quality since readings were often out of range and the data have been processed using laboratory calibrations. Standard processing using STPIN converted the raw CTD data into decimated form at 1 db bins by pressure sorting. In addition to conversion to physical units, STPIN performed range checks and despiked the data. Adjusted calibrations, using STPROC, were salinity -0.018 and pressure + 3.1 db. Expected accuracy is ±0.005°C, ±.01‰, ±1 db and ±.01 σ_t.

2.2 Current Meters

Fairey floats for the two moorings were at approximately 20 to 25 m, a depth sufficient to avoid mooring motion by surface waves. One mooring, #585, had the bottom wire length adjusted from the design length to bring the instruments to within 25 m of the surface in order to capture as much of the shallow surface layer as possible. Two types of current meters were used; VACM and Aanderaa. The VACM's were located at the 25 m level of each mooring only. Aanderaa data were translated on a PDP-8E for processing on the Cyber. Speed calibrations are those of the manufacturer applied to first differences of rotor count; threshold velocity is assumed to be 0.015 m/s. Accuracy is approximately ±2% of speed. Compass calibrations performed in the laboratory just prior to the cruise were applied to direction data taken as the mean of successive readings. Direction errors are about ±5° (see references). Standard sampling rate was two minutes. All time series are checked for correct time base; data spikes are deleted by linear interpolation. The VACM data follow a similar route, pre- and post-cruise calibration checks, translation on an HP 1000 using manufacturer calibration and the above data checks. Accuracy is similar to the Aanderaa; sampling rate was 15 minutes. Data from some instruments on mooring #585 are suspect because of ground line entangelment on the meters, and damaged gimbals.

2.3 Thermistor Chains

The standart TR-1 Aanderaa thermistor chain recorder (#415) was used. Data processing follows a sequence similar to that for the current meters. These chains received the normal calibration and have an expected accuracy of about ±0.1°C (Boyce, 1982). The response time is about one minute. Sampling rate was set at five minutes.

2.4 BATFISH

The system consisted of the standard narrow winged version with a Digital CTD. Typical operating procedure was a ship speed of about 8 kts (15 km/hr), and a climb-dive rate of 2 m/second over the depth range of 10 m to 100 m. This mode was chosen to obtain as high a horizontal sampling rate as possible for this vessel speed. Data processing was undertaken on the Cyber and proceeded in a sequence similar to the CTD analysis. Final contoured plots were generated by an automated contouring routine. The program used is a modified version of SECCON (Section Contouring). This is a part of the CONMAP (Contour Mapping) System used at MEDS. Changes were made so that the routine could read the CM Format. Standard accuracy for the instrument is $S = \pm.05‰$, $T = \pm.02°C$, $P = \pm 2db$ and $\sigma_t = \pm.05$ (Bennett, personal comm.). The expected scalar resolution is about ±1 m (Bennett and Huaide, 1986).

2.5 Ametek Straza Doppler Current Profiler

All data were collected by the *CSS Dawson* hull mounted unit. Where possible, the data were collected in the bottom tracked mode simultaneous with the BATFISH sections. In water depths less than 300 m, bottom tracking was possible and therefore absolute velocity profiles obtained. At depths greater than 300 m the instrument was operated in the profiling mode and ship speed used to adjust profiles. These portions are noted on the plots. Accuracy varied, but is thought to be of about ±5 cm/s. Data were collected as averages over eight minutes, with a 10 minute repeat cycle.

2.6 Acoustics

Data presented are reproductions of the original dry paper field recordings of acoustic backscattering observed by the standard configuration of the 12 kHz Raytheon PTR Sounder. For the majority of the data, the recorder operated with automatic gain control.

3. CRUISE 83-024 – OVERVIEW

The program was planned to intensively study the internal wave processes along a line at 63°30'W from beyond the shelf break (200 m contour) and inshore. Two moorings were placed for the duration of the cruise along 63°30W, at 42°59'N and 42°54'N. A general survey of the large scale density field was obtained by occupying three, 50 km north-south CTD sections, at 63°20'W, 63°30'W and 63°40'W. The remainder of the activities consisted of simultaneous observation of the density field, velocity field and backscattering along a N-S line near 63°30W, in one of two modes: 1) routinely surveying over a tidal cycle a fixed N-S section; these are stations 33-37; and 2) repeated surveying along the N-S section at a location where intense high amplitude internal waves occurred, following the pattern as it propagated shoreward (north), stations 38 to 43 and station 47.

REFERENCES

Bennett, A.S. and T. Huaide. 1986. CTD time constant connection, Deep-Sea Res.,33(10): 1425-1438.

Boyce, R. 1982. Calibration of conductivity and temperature for the Aanderaa RCM-5 Current Meter, Can. Tech. Rep. of Hyd. and Ocean Sci. No. 1: 27 pp.

Cruise Report 83-024, *CSS DAWSON*, August 19-30. 1983. BIO, AOL, Dartmouth, N.S.

Sandstrom, H. and J.A. Elliott. 1986. Atlas of physical oceanographic data for current surge studies on the Scotian Shelf: 1980-82. Can. Tech. Rep. Hyd. and Ocean Sci. No. 77: iii + 261 pp.

Figures 1-3

North-south CTD sections of Temperature, Salinity and Sigma-t for 83-024. An inset in the Sigma-t section shows the station locations.

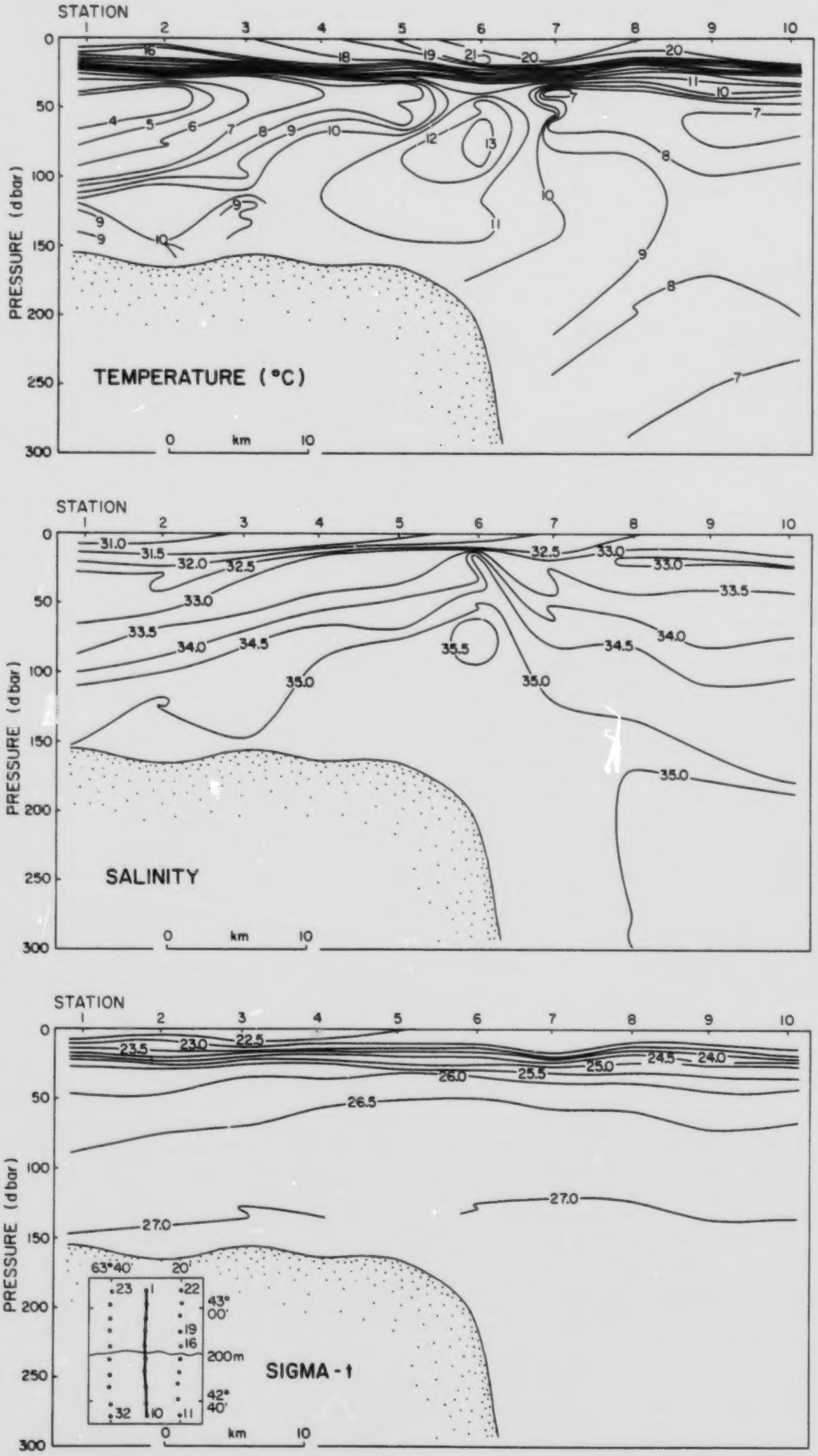

STATION
1 2 3 4 5 6 7 8 9 10
PRESSURE (dbar)
0 50 100 150 200 250 300
16 18 19 21 20 20 11 10 7 7
4 5 6 7 8 9 10 12 13 8 10 9 9 9 10 11 9 8 7
TEMPERATURE (°C)
0 km 10
STATION
1 2 3 4 5 6 7 8 9 10
PRESSURE (dbar)
31.0 31.5 32.0 32.5 32.5 33.0 33.0 33.5 33.0 33.5 34.0 34.5 35.5 35.0 35.0 34.5 34.0 35.0
SALINITY
0 km 10
STATION
1 2 3 4 5 6 7 8 9 10
PRESSURE (dbar)
23.5 23.0 22.5 26.0 25.5 25.0 24.5 24.0 26.5 27.0 27.0
63°40' 20'
23 1 22
43° 00'
19
16
200m
42° 40'
32 10 11
SIGMA-t
0 km 10

Fig. 1

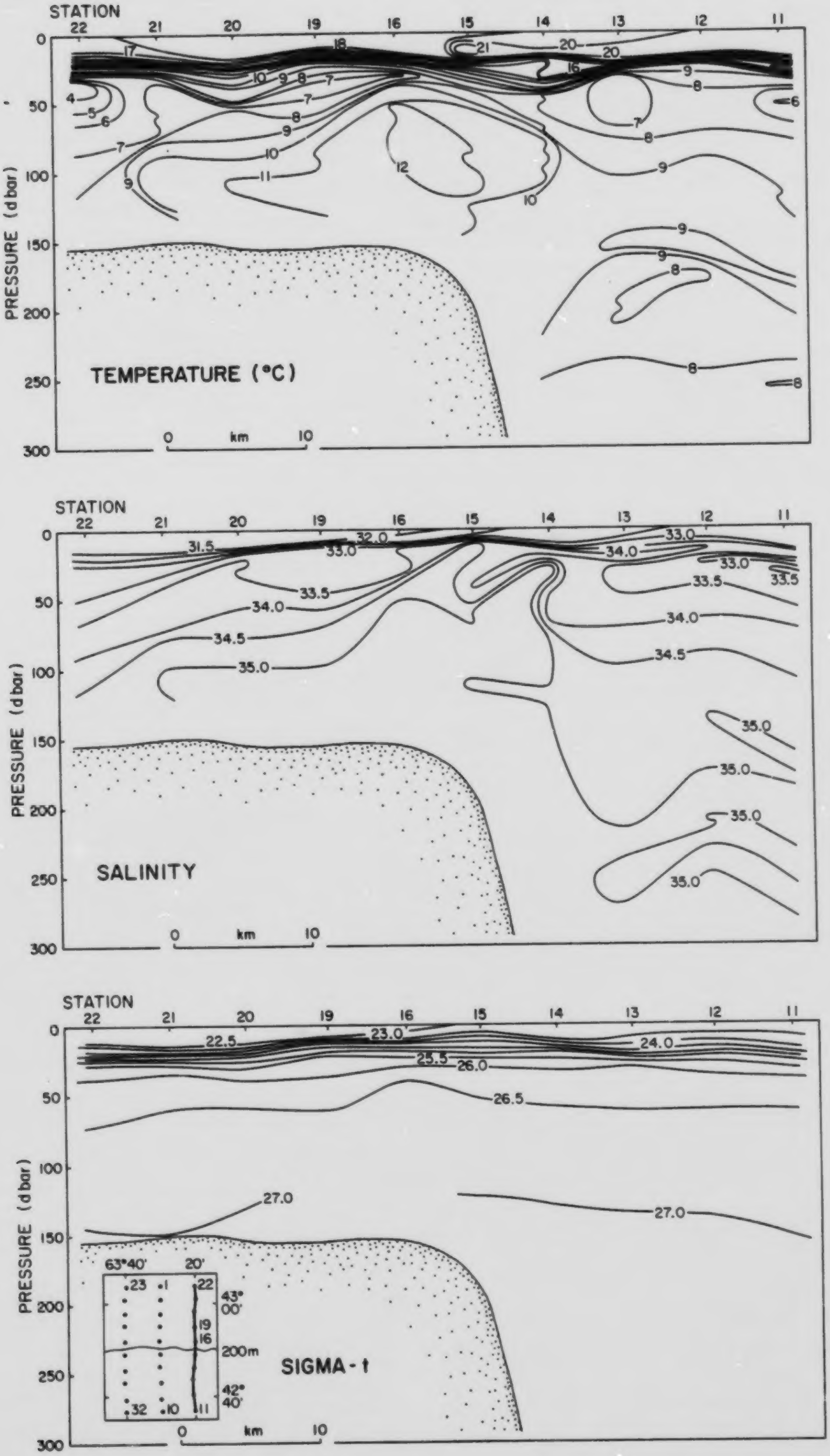

STATION
22
21
20
19
16
15
14
13
12
11
PRESSURE (d bar)
0
50
100
150
200
250
300
TEMPERATURE (°C)
0 km 10
SALINITY
SIGMA-t
63°40'
20'
43°
00'
200m
42°
40'
23
1
22
19
16
32
10
11
31.5
32.0
33.0
33.5
34.0
34.5
35.0
22.5
23.0
24.0
25.5
26.0
26.5
27.0

Fig. 2

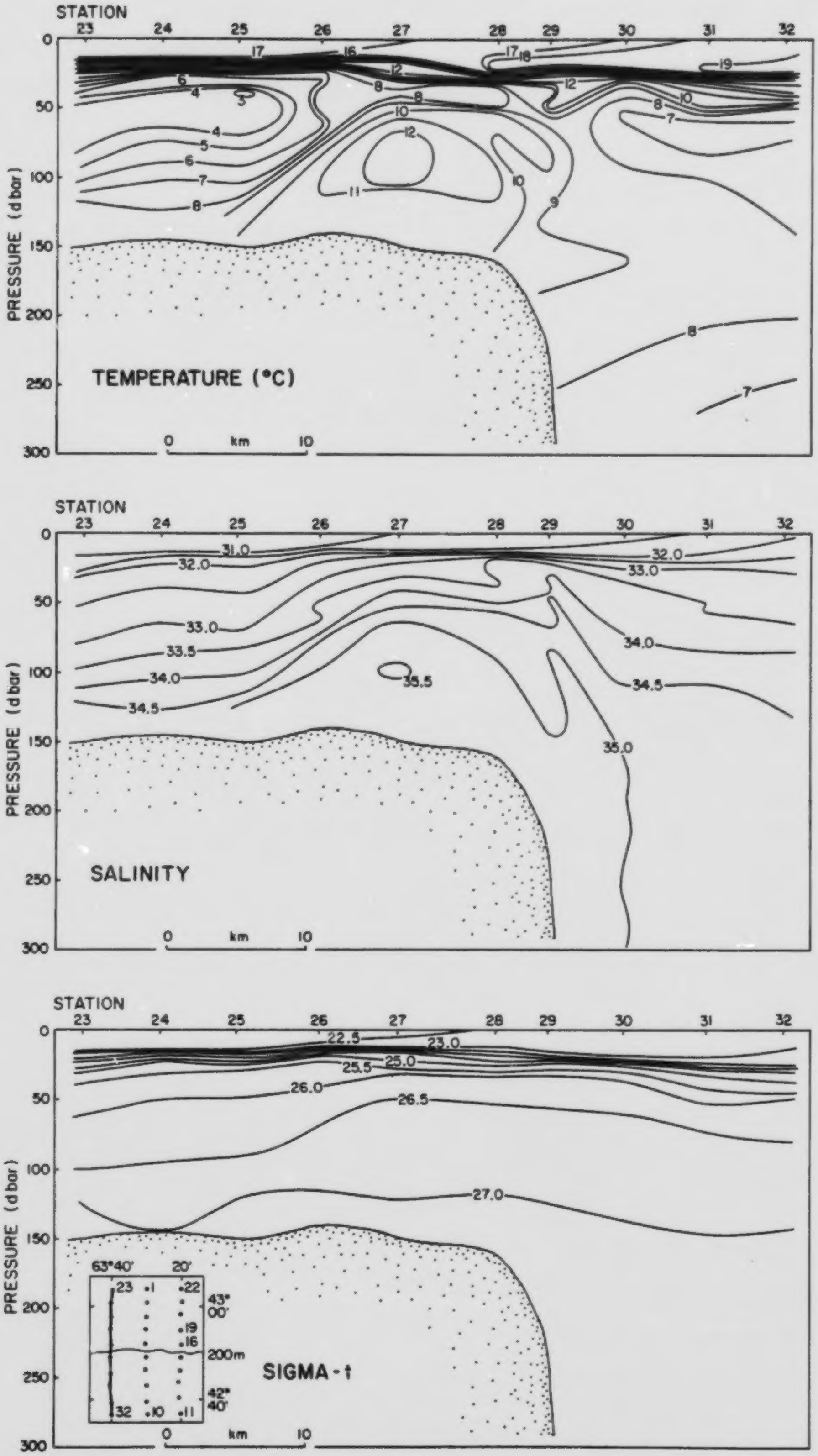

STATION
23
24
25
26
27
28
29
30
31
32
PRESSURE (d bar)
0
50
100
150
200
250
300
TEMPERATURE (°C)
17
16
12
17
18
19
6
4
3
8
8
10
12
11
12
10
8
7
4
5
6
7
8
10
9
8
7
0
km
10
SALINITY
31.0
32.0
32.0
33.0
33.0
33.5
34.0
34.5
35.5
34.0
34.5
35.0
SIGMA-t
22.5
23.0
25.0
25.5
26.0
26.5
27.0
63°40'
20'
23
1
22
43°
00'
19
16
200m
42°
40'
32
10
11

Fig. 3

Figures 4-30

R(ate), (D)irection, U (east component), V (north component) of current, progressive vector and current vector plots for current meter moorings, #584 (42°58'.9N, 63°29'.7W) and #585 (42°54'.0N, 63°29'.7W).

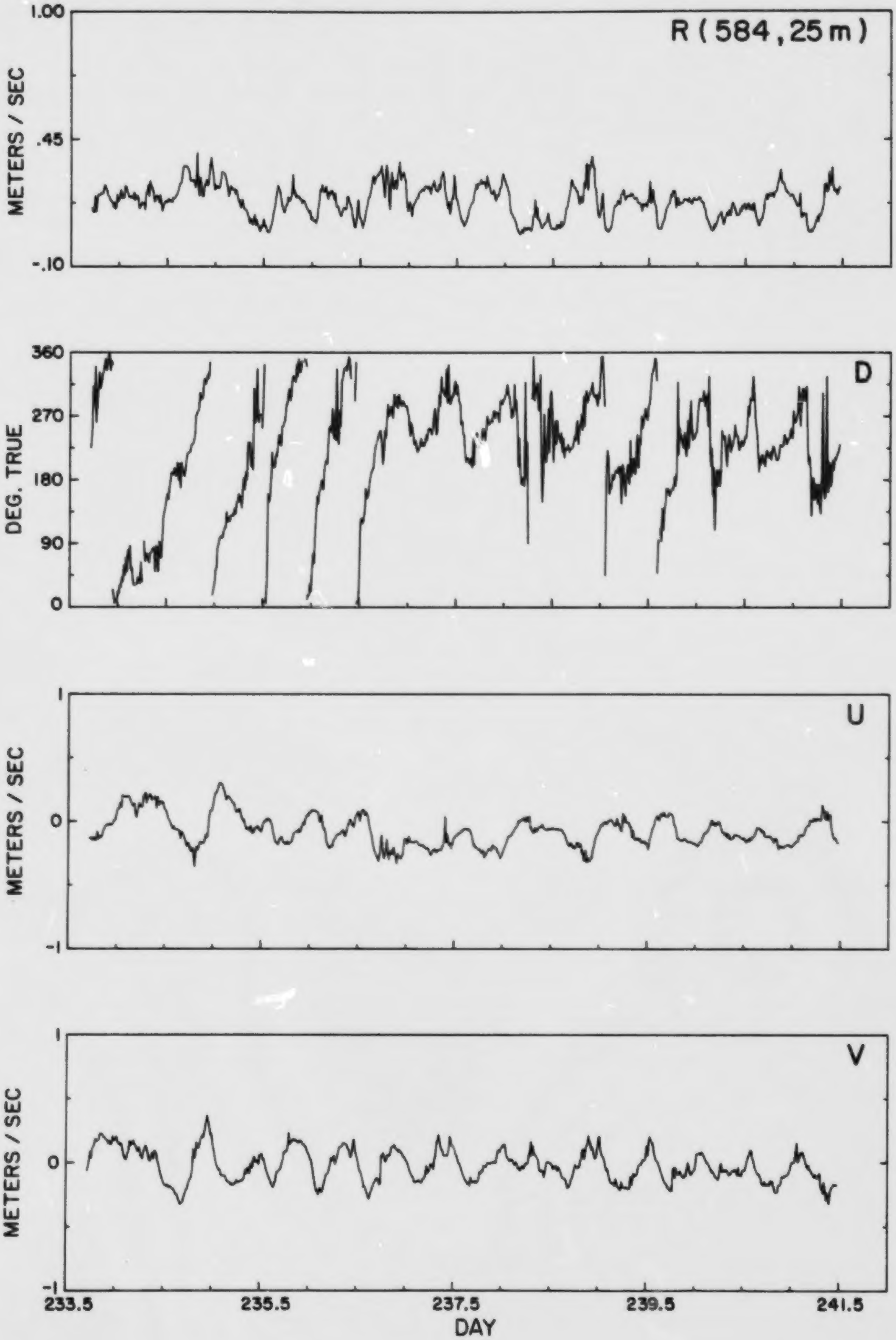

R (584 , 25 m)
1.00
.45
-.10
METERS / SEC
D
360
270
180
90
0
DEG. TRUE
U
1
0
-1
METERS / SEC
V
1
0
-1
METERS / SEC
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 4

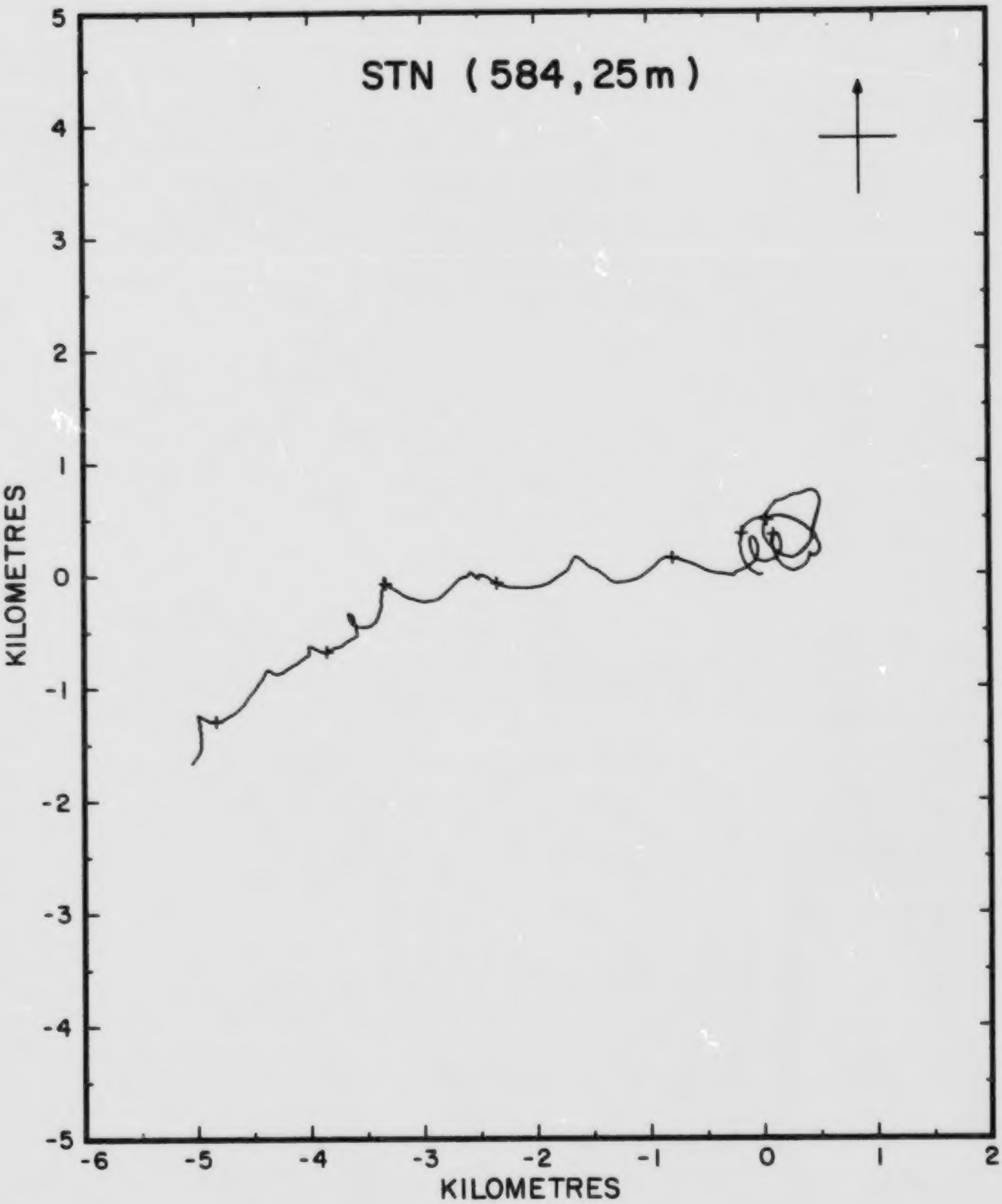


Fig. 5

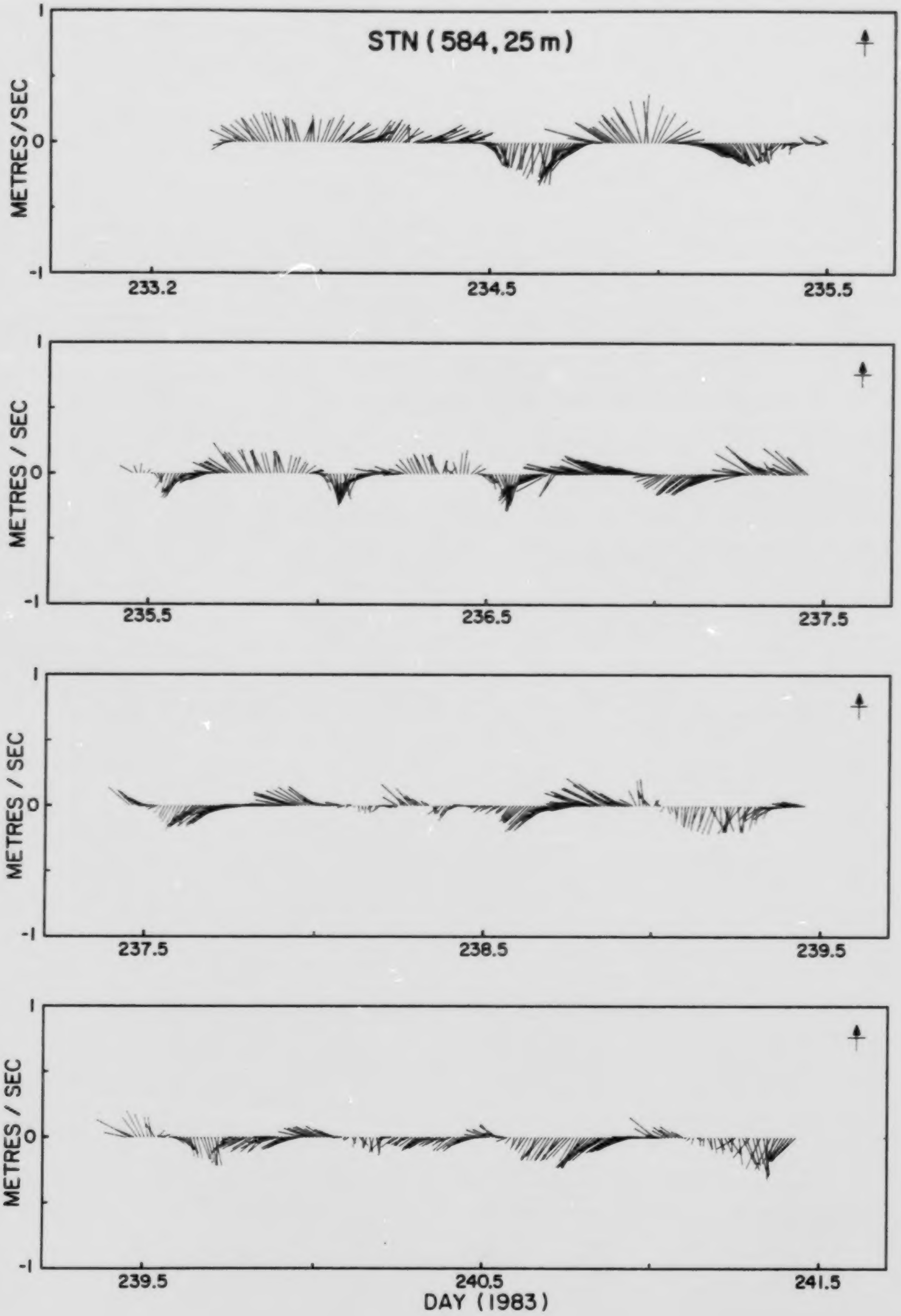

STN (584, 25 m)
METRES/SEC
METRES / SEC
METRES / SEC
METRES / SEC
1
0
-1
233.2
234.5
235.5
235.5
236.5
237.5
237.5
238.5
239.5
239.5
240.5
241.5
DAY (1983)

Fig. 6

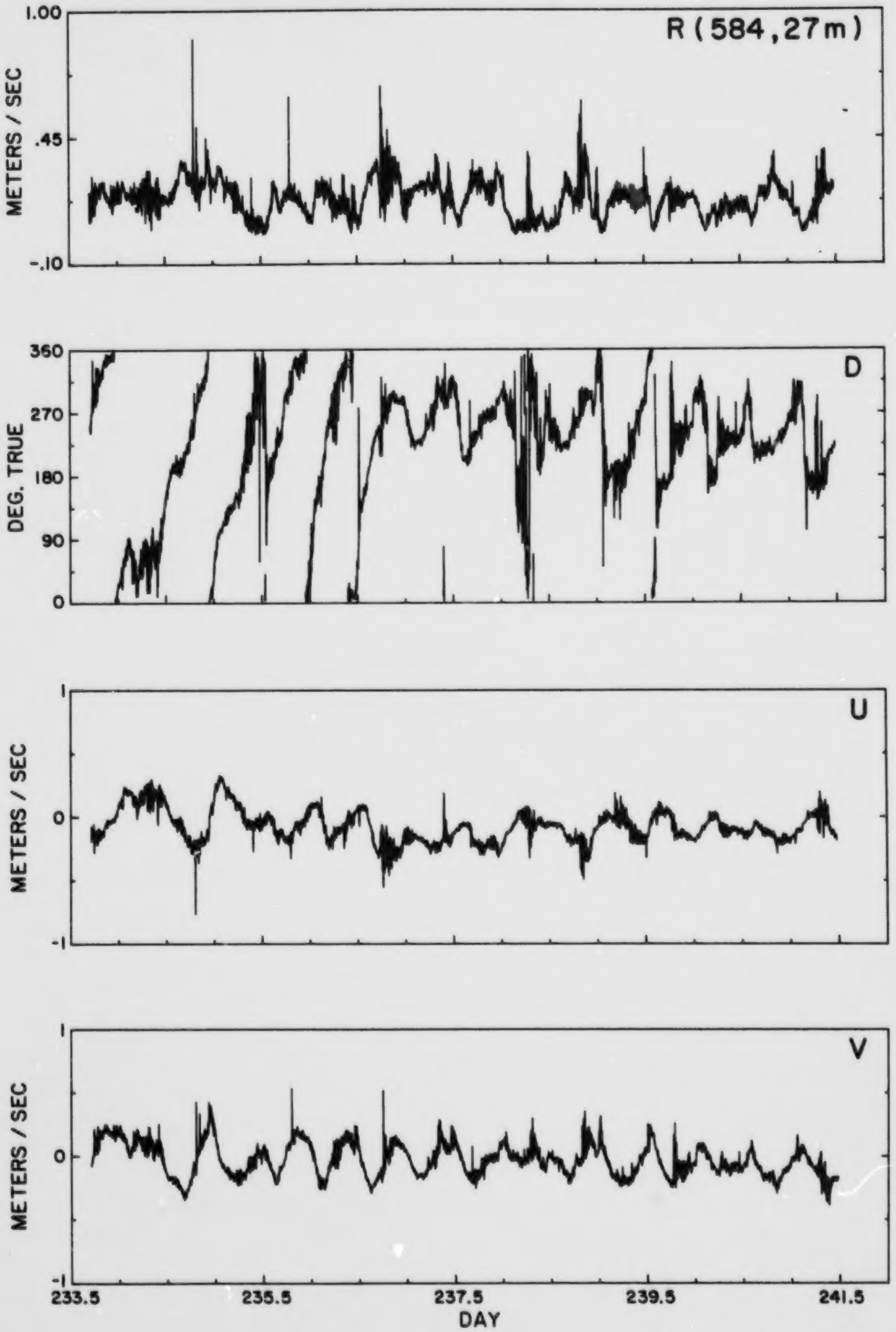

R (584, 27m)
METERS / SEC
1.00
.45
-.10
D
DEG. TRUE
360
270
180
90
0
U
METERS / SEC
1
0
-1
V
METERS / SEC
1
0
-1
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 7

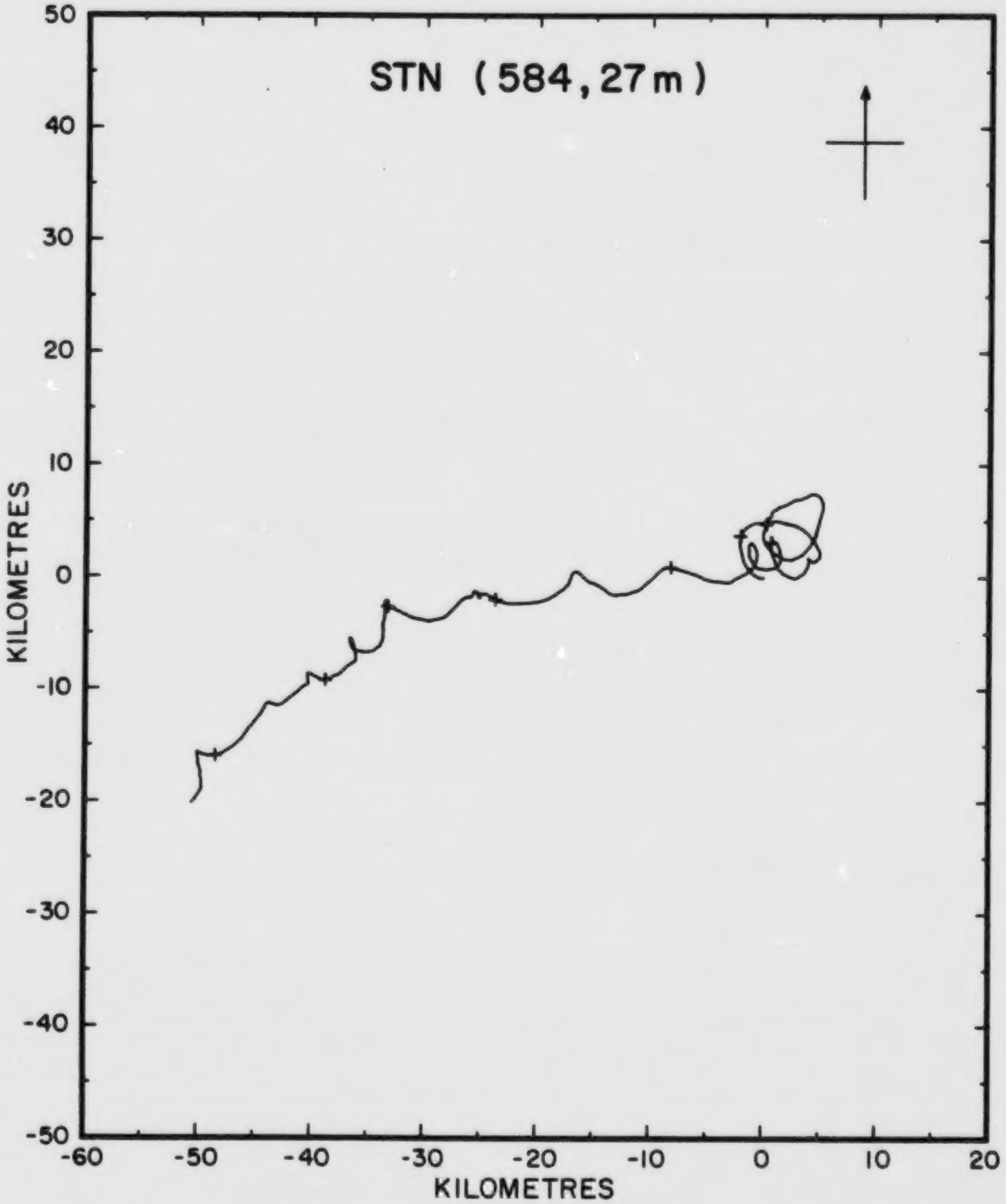

STN (584, 27m)
KILOMETRES
KILOMETRES
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-50
-40
-30
-20
-10
0
10
20

Fig. 8

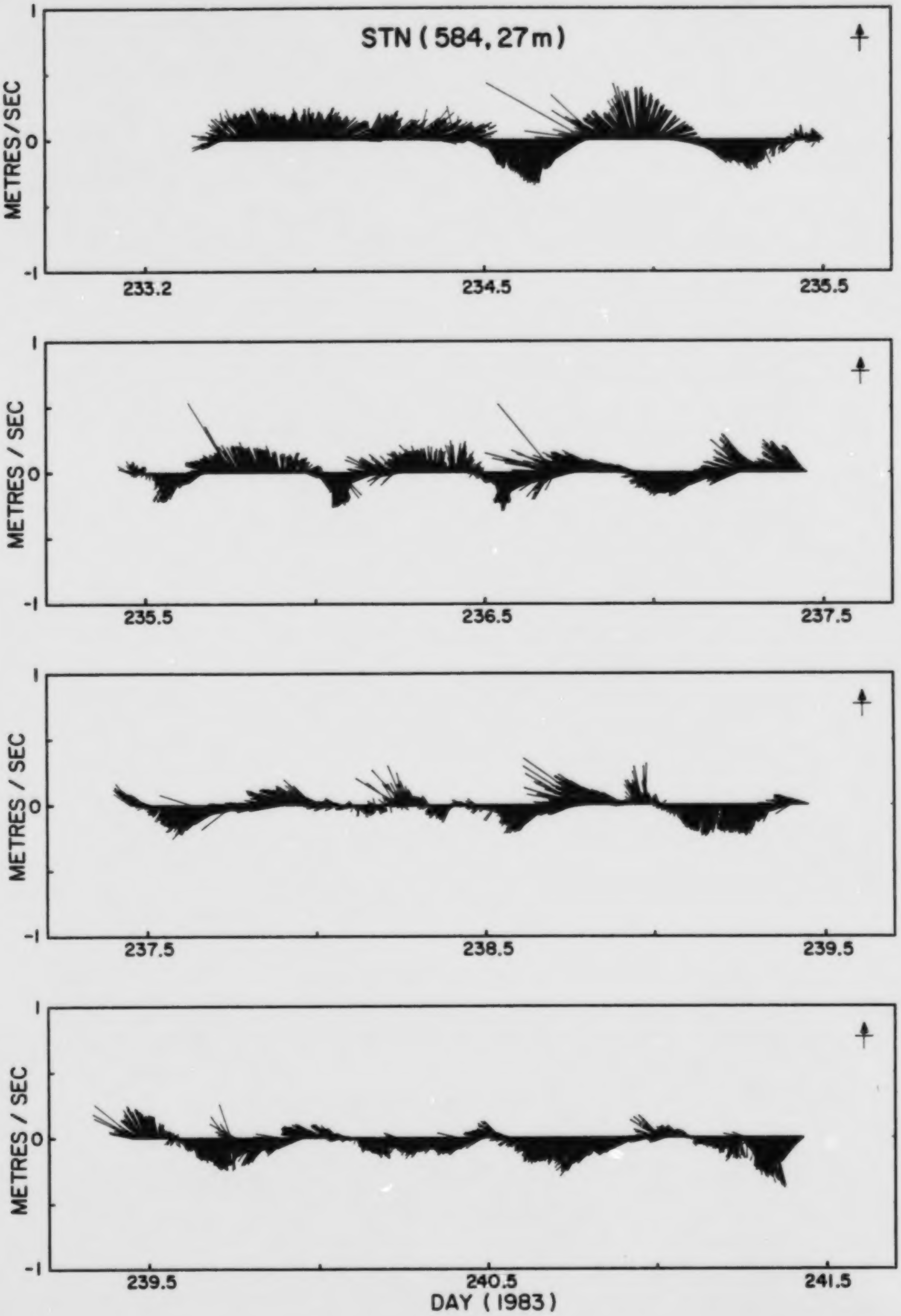

STN (584, 27m)
METRES/SEC
1
0
-1
233.2
234.5
235.5
METRES / SEC
1
0
-1
235.5
236.5
237.5
METRES / SEC
1
0
-1
237.5
238.5
239.5
METRES / SEC
1
0
-1
239.5
240.5
241.5
DAY (1983)

Fig.9

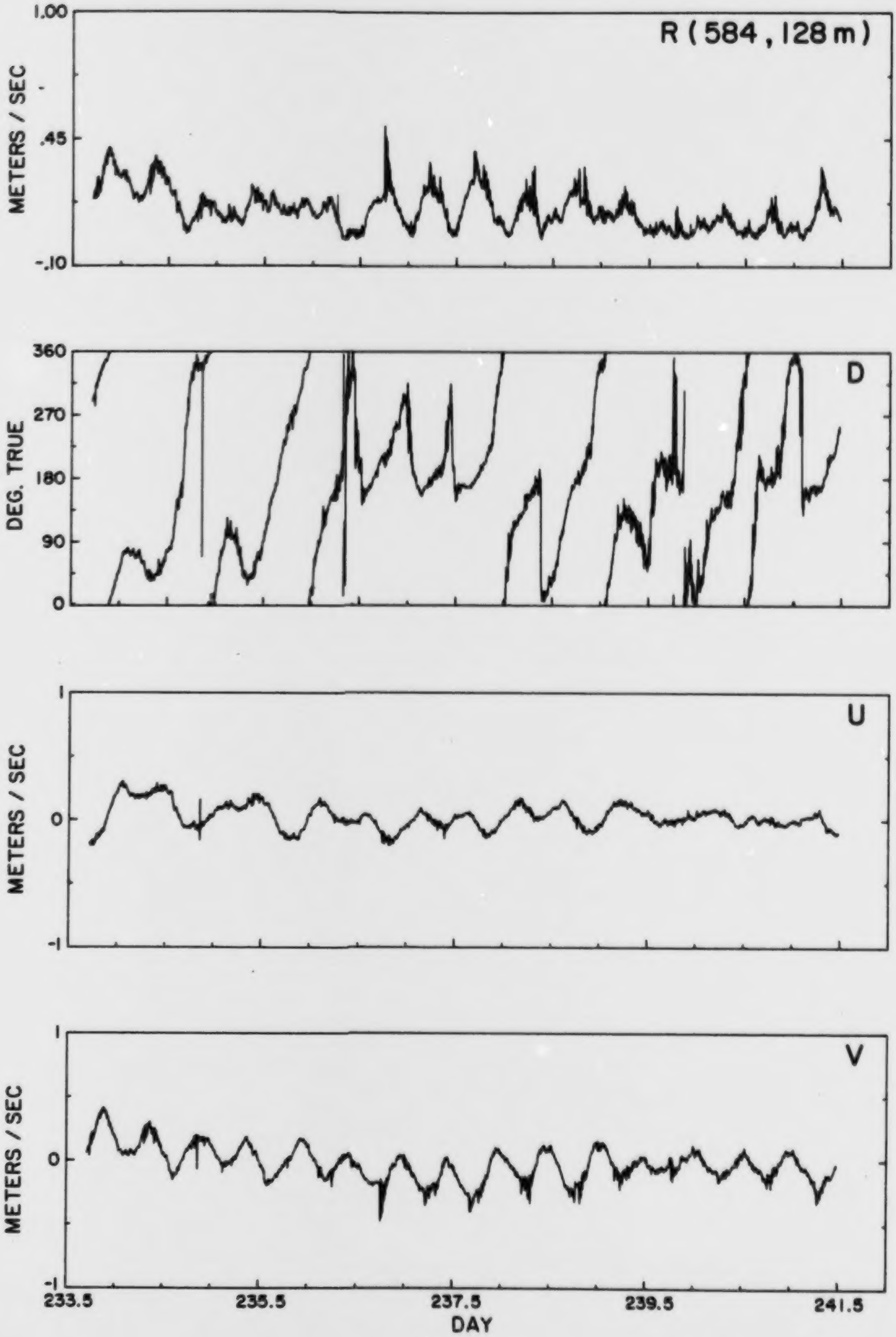

R (584, 128 m)
METERS / SEC
1.00
.45
-.10
D
DEG. TRUE
360
270
180
90
0
U
METERS / SEC
1
0
-1
V
METERS / SEC
1
0
-1
233.5
235.5
237.5
239.5
241.5
DAY

Fig.10

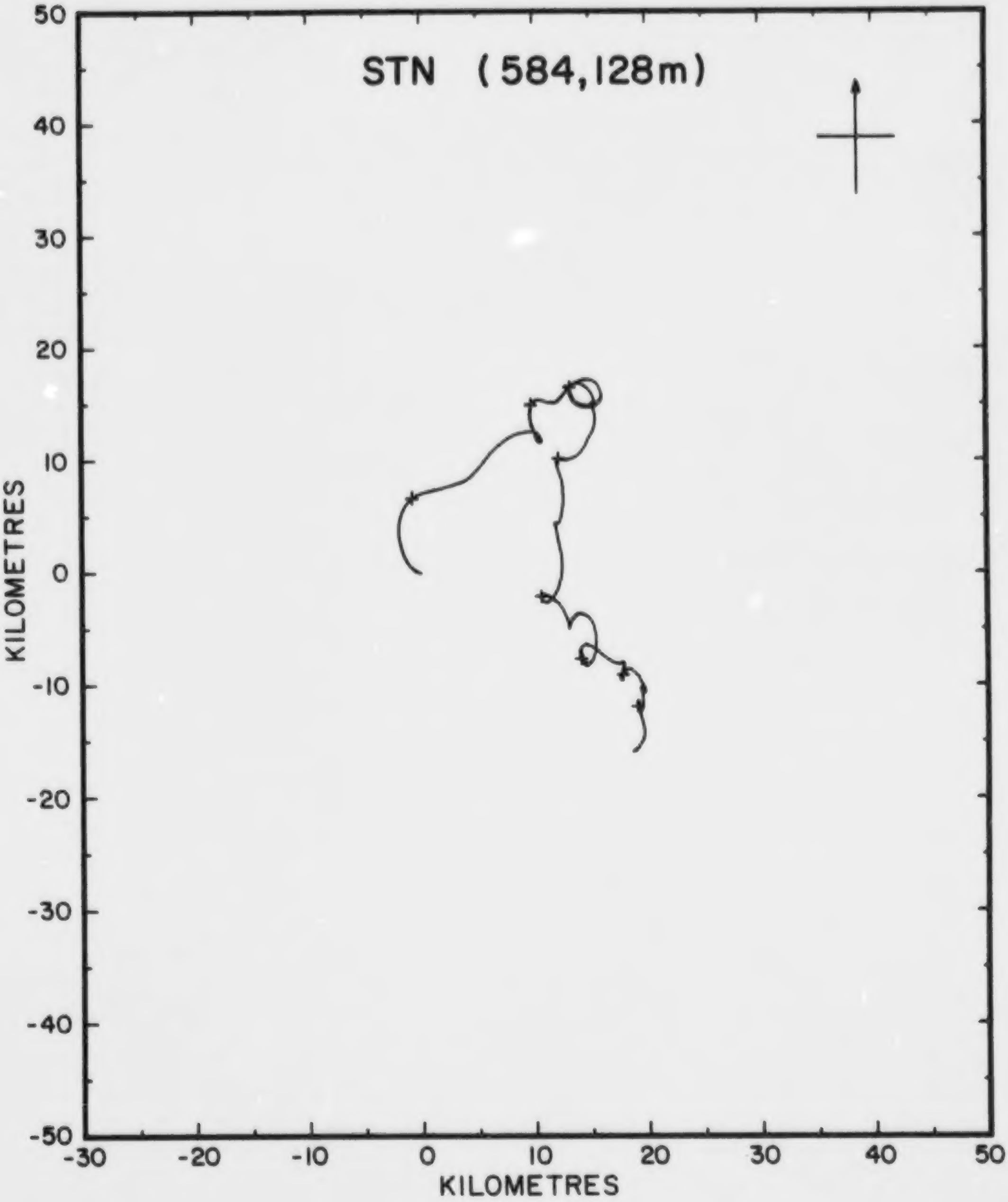

STN (584,128m)
50
40
30
20
10
0
-10
-20
-30
-40
-50
-30
-20
-10
0
10
20
30
40
50
KILOMETRES
KILOMETRES

Fig.11

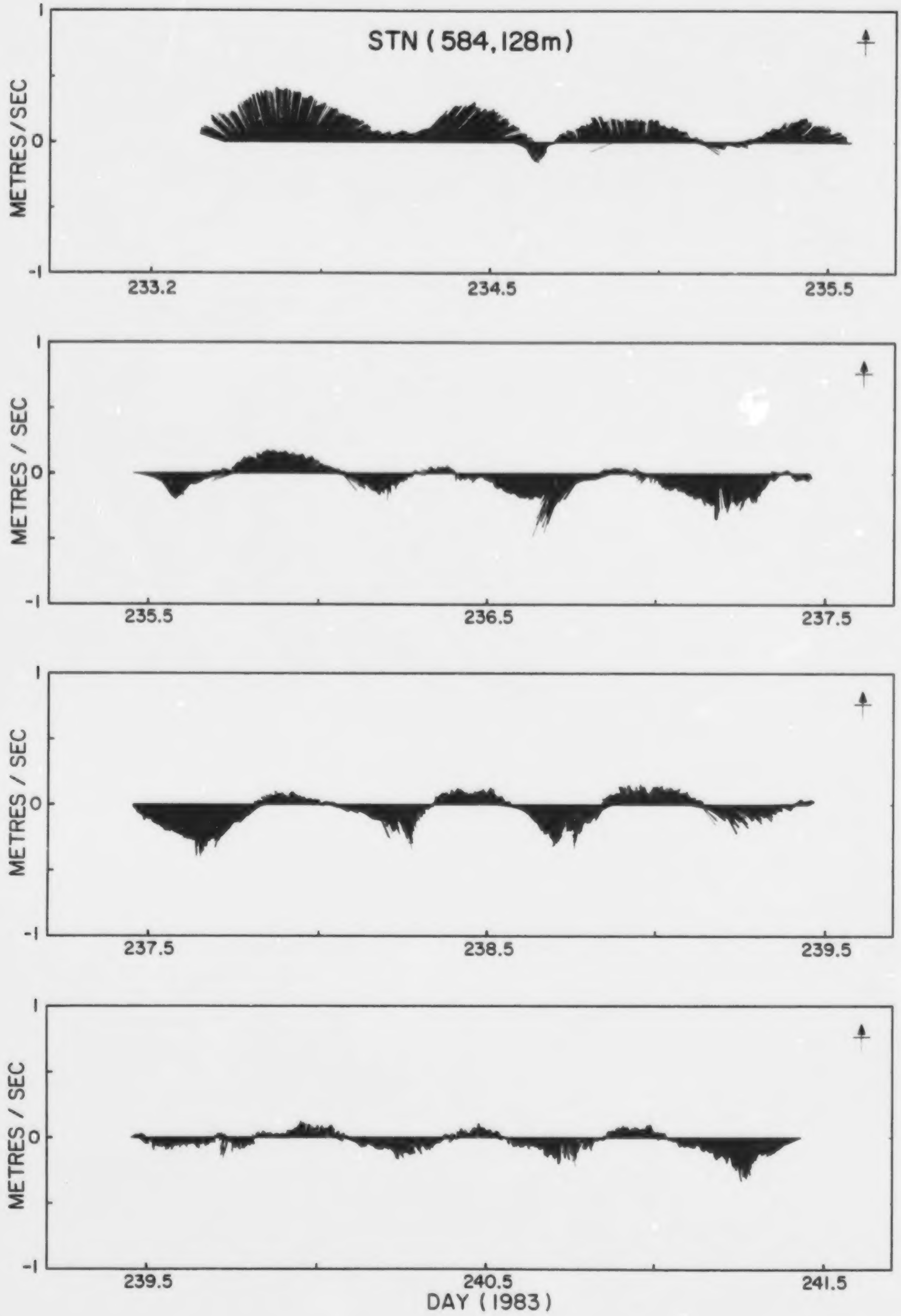

STN (584, 128m)
METRES/SEC
1
0
-1
233.2
234.5
235.5
METRES / SEC
235.5
236.5
237.5
METRES / SEC
237.5
238.5
239.5
METRES / SEC
239.5
240.5
241.5
DAY (1983)

Fig. 12

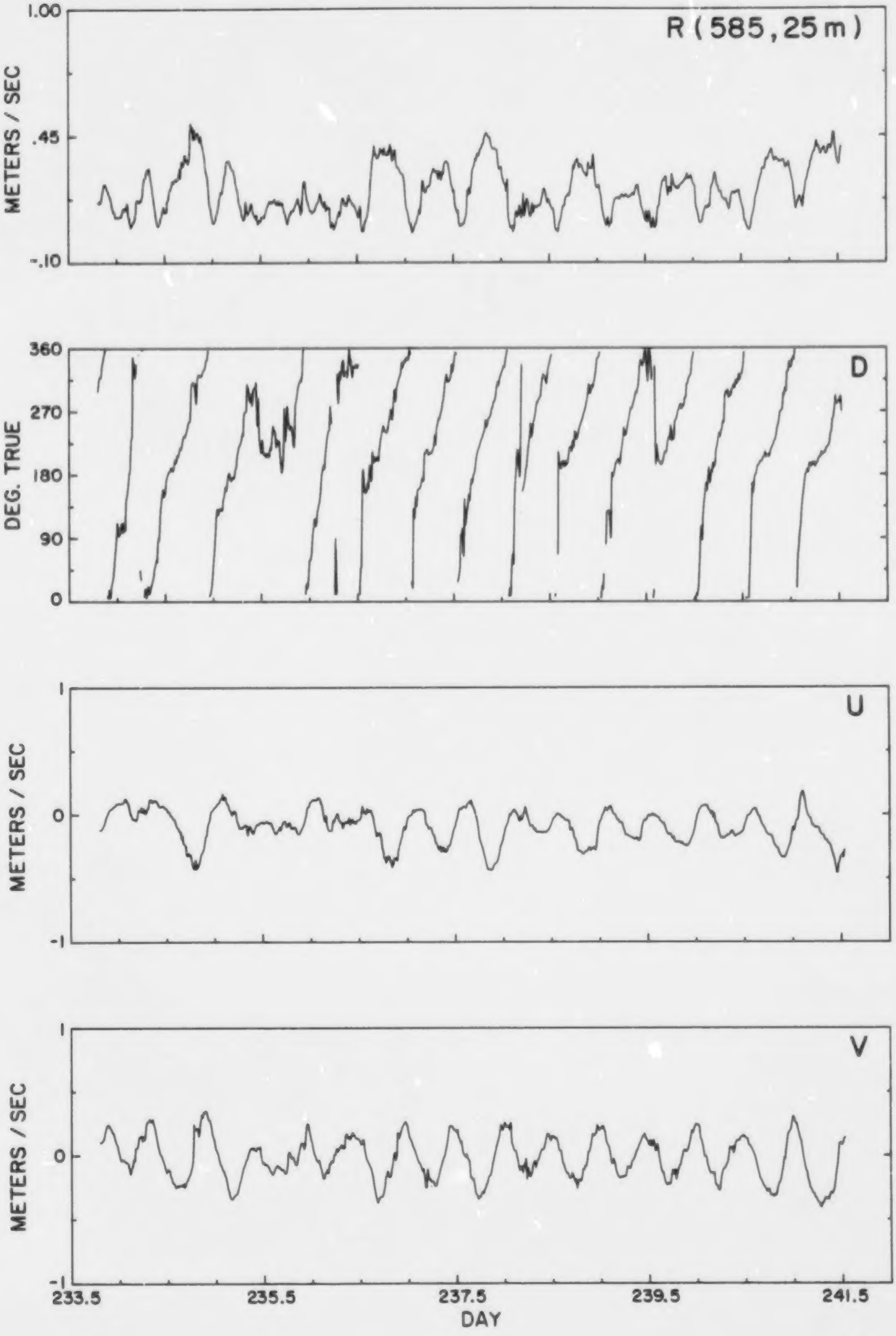

R (585 , 25 m)
METERS / SEC
1.00
.45
-.10
D
DEG. TRUE
360
270
180
90
0
U
METERS / SEC
1
0
-1
V
METERS / SEC
1
0
-1
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 13

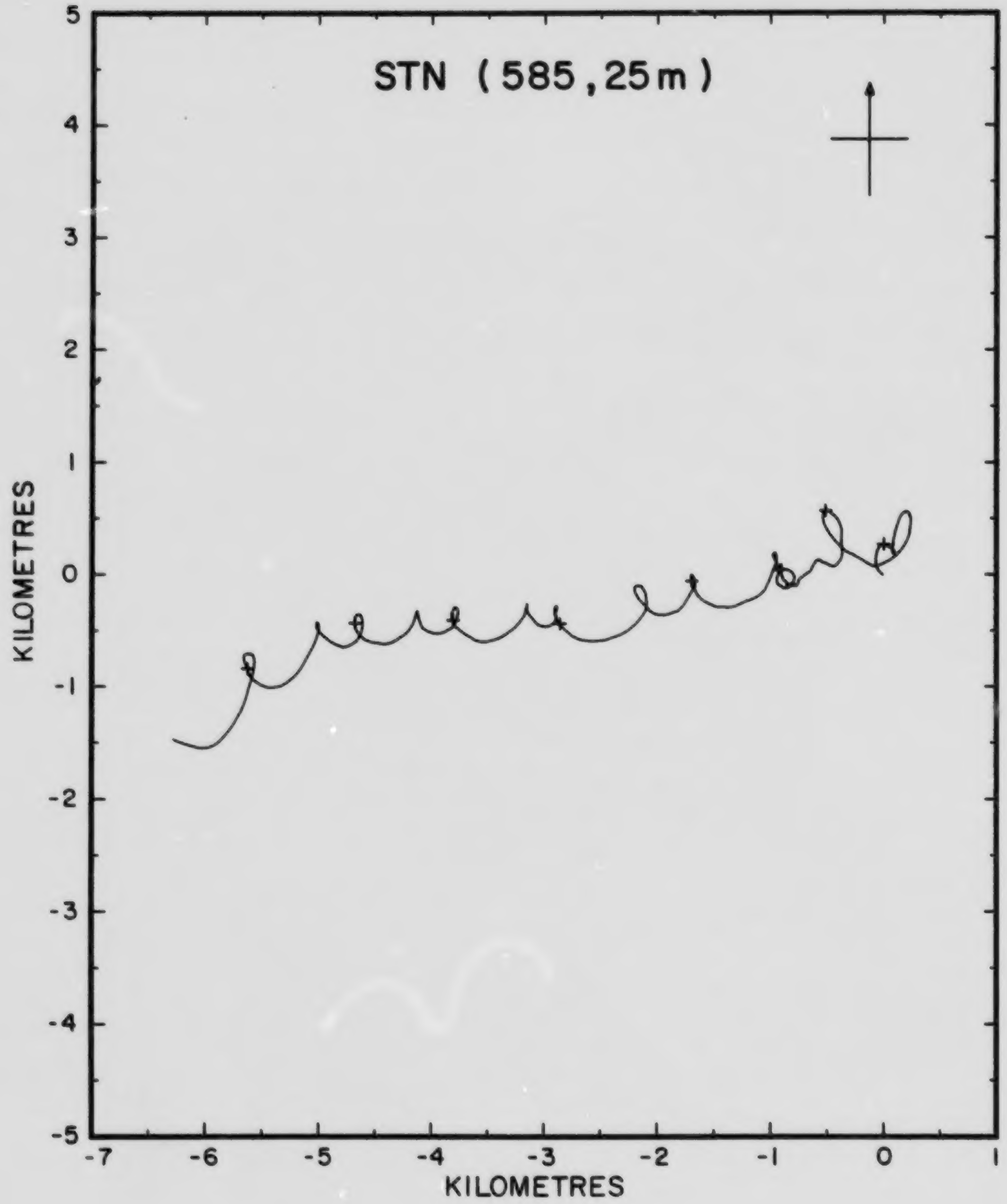


Fig. 14

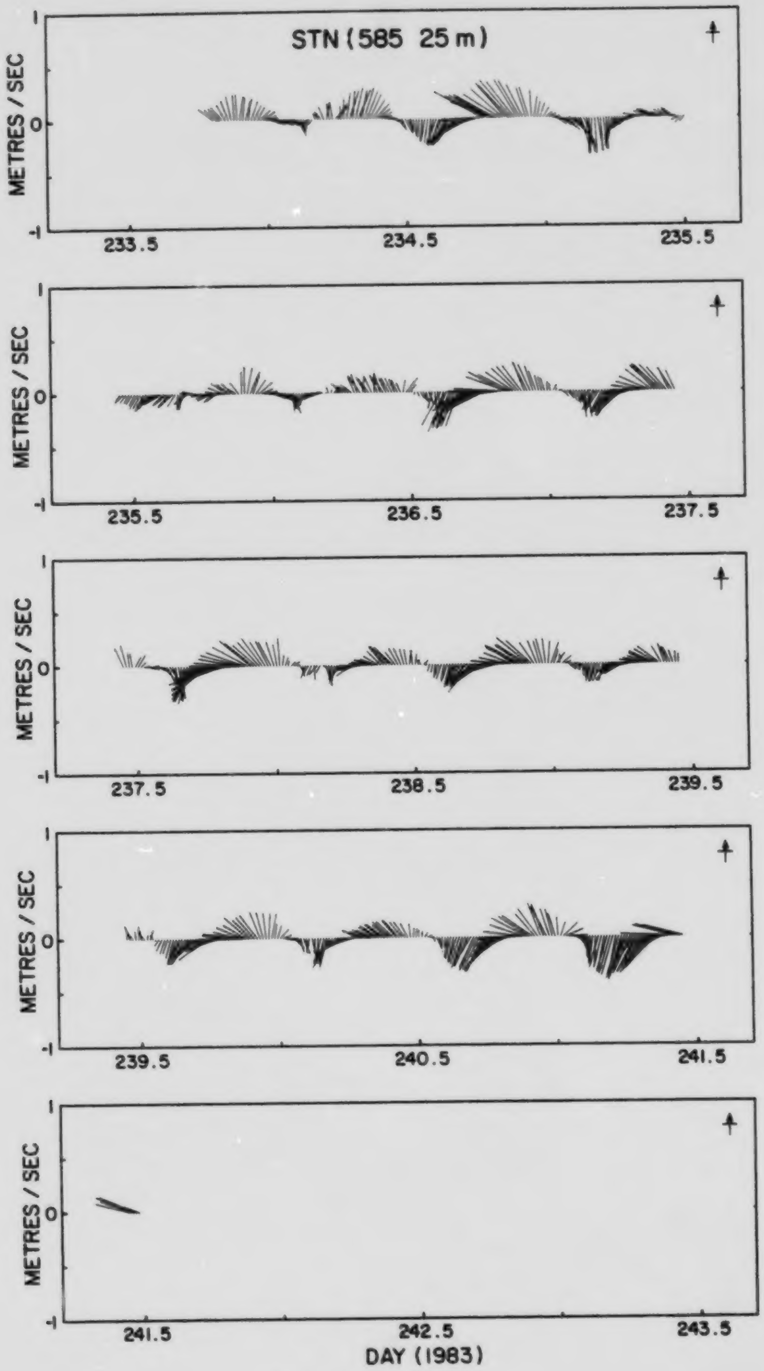

STN (585 25 m)
METRES / SEC
1
0
-1
233.5
234.5
235.5
236.5
237.5
238.5
239.5
240.5
241.5
242.5
243.5
DAY (1983)

Fig. 15

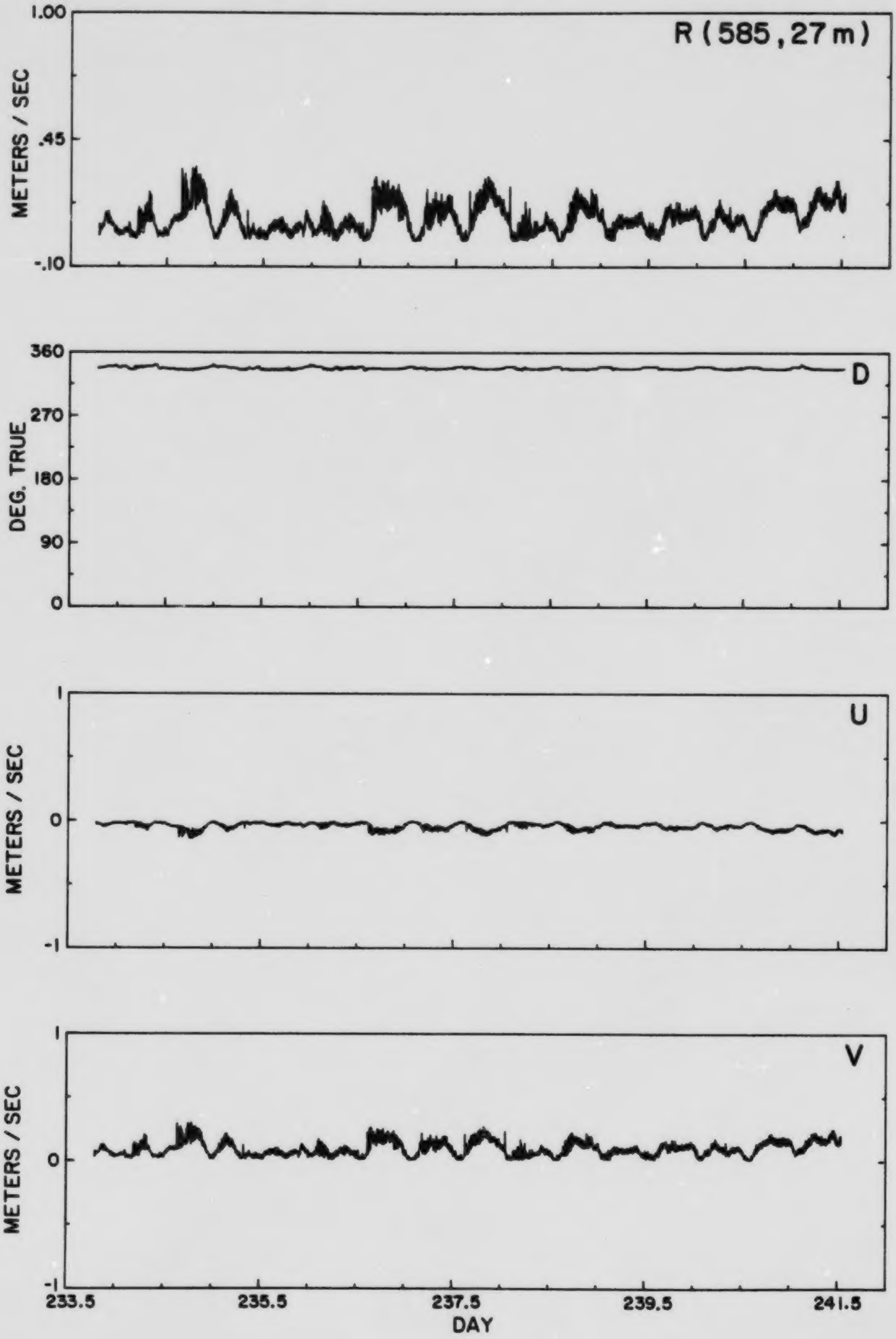

R (585, 27 m)
METERS / SEC
1.00
.45
-.10
D
DEG. TRUE
360
270
180
90
0
U
METERS / SEC
1
0
-1
V
METERS / SEC
1
0
-1
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 16

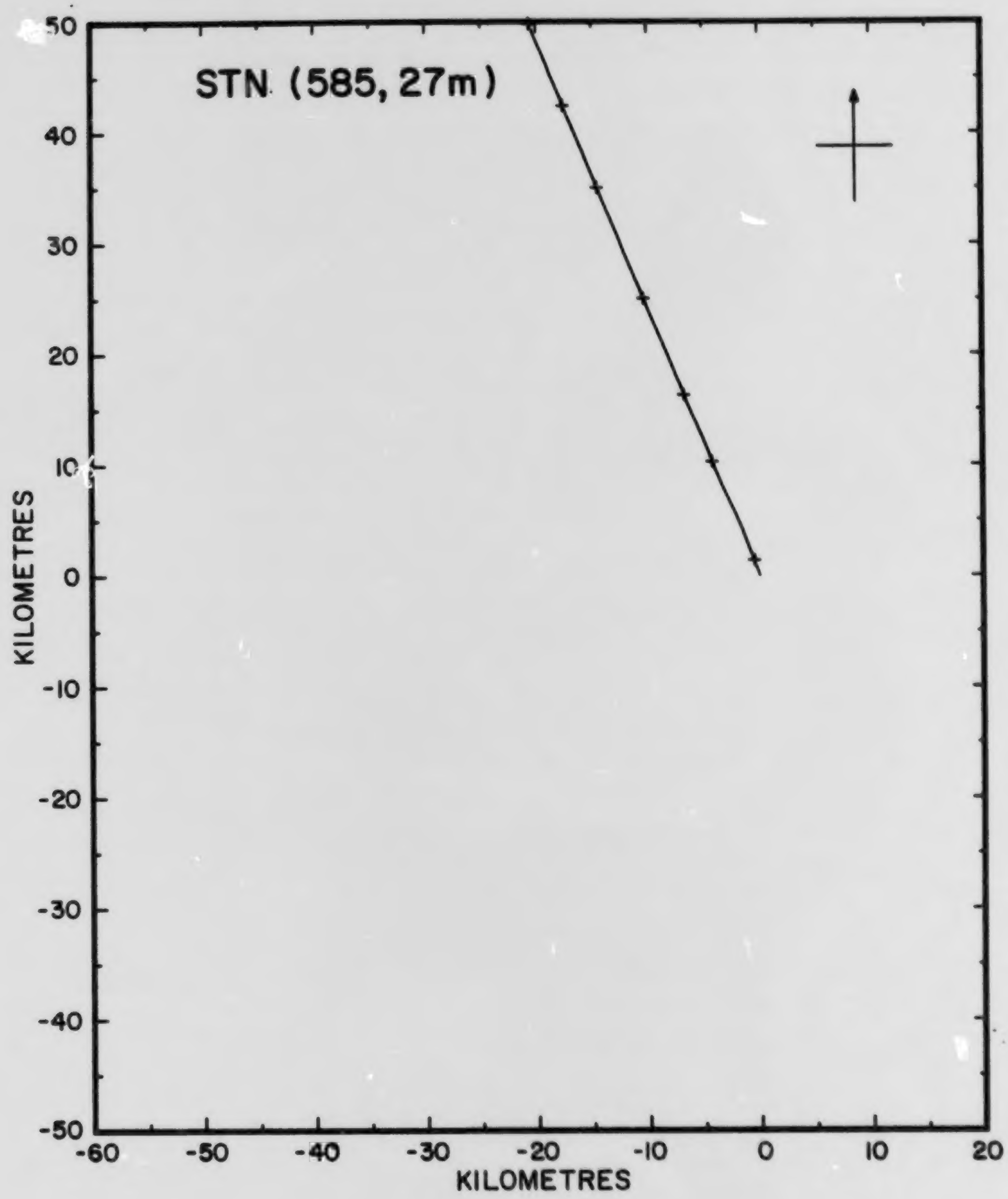

STN. (585, 27m)
50
40
30
20
10
0
-10
-20
-30
-40
-50
KILOMETRES
-60
-50
-40
-30
-20
-10
0
10
20
KILOMETRES

Fig. 17

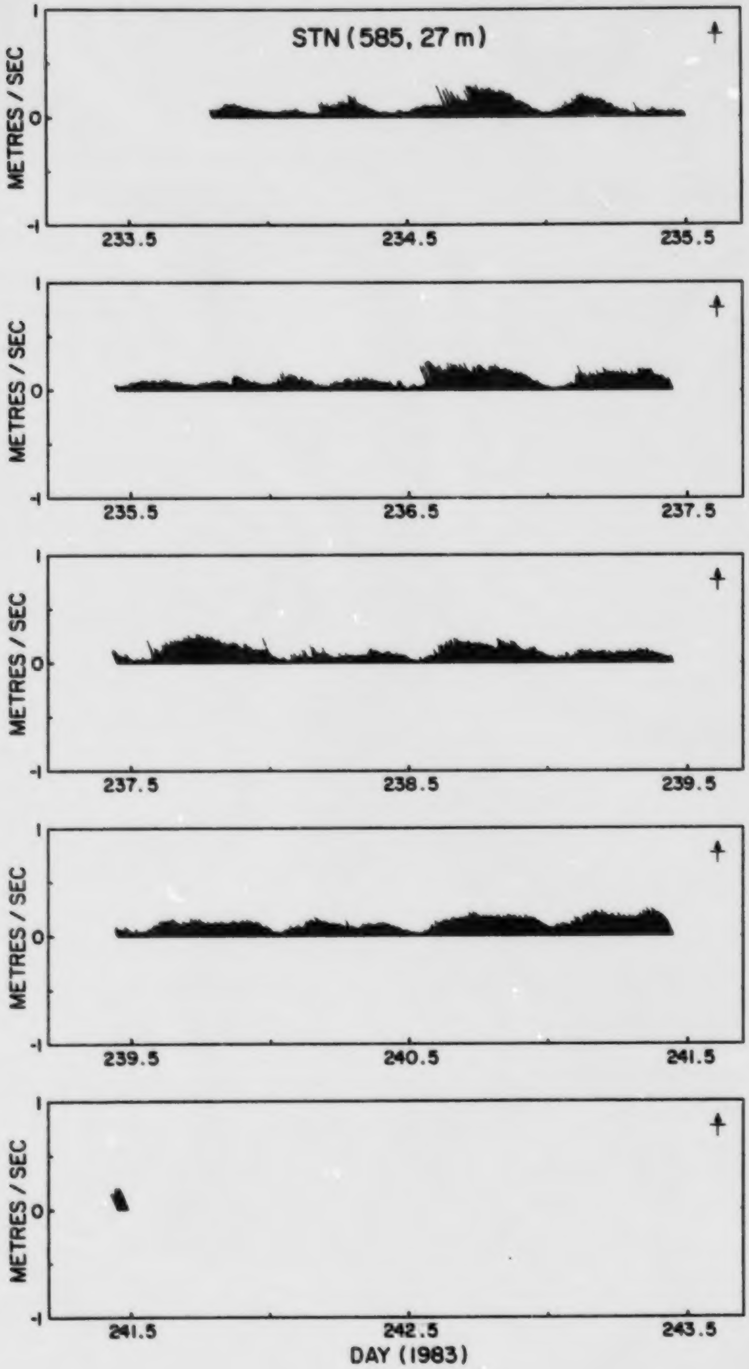

STN (585, 27 m)
METRES / SEC
1
0
-1
233.5
234.5
235.5
236.5
237.5
238.5
239.5
240.5
241.5
242.5
243.5
DAY (1983)

Fig. 18

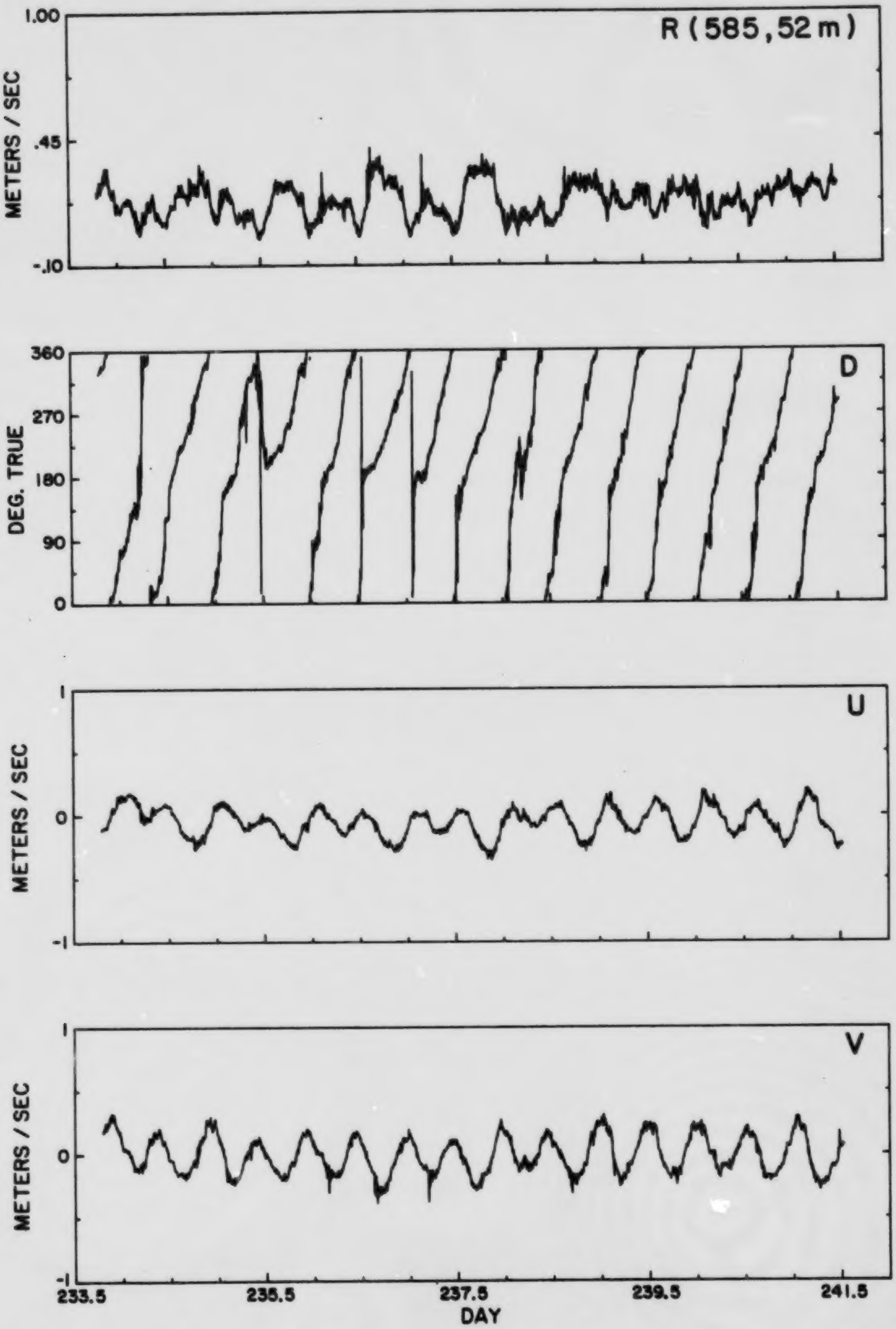

R (585,52 m)
METERS / SEC
1.00
.45
-.10
D
DEG. TRUE
360
270
180
90
0
U
METERS / SEC
1
0
-1
V
METERS / SEC
1
0
-1
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 19

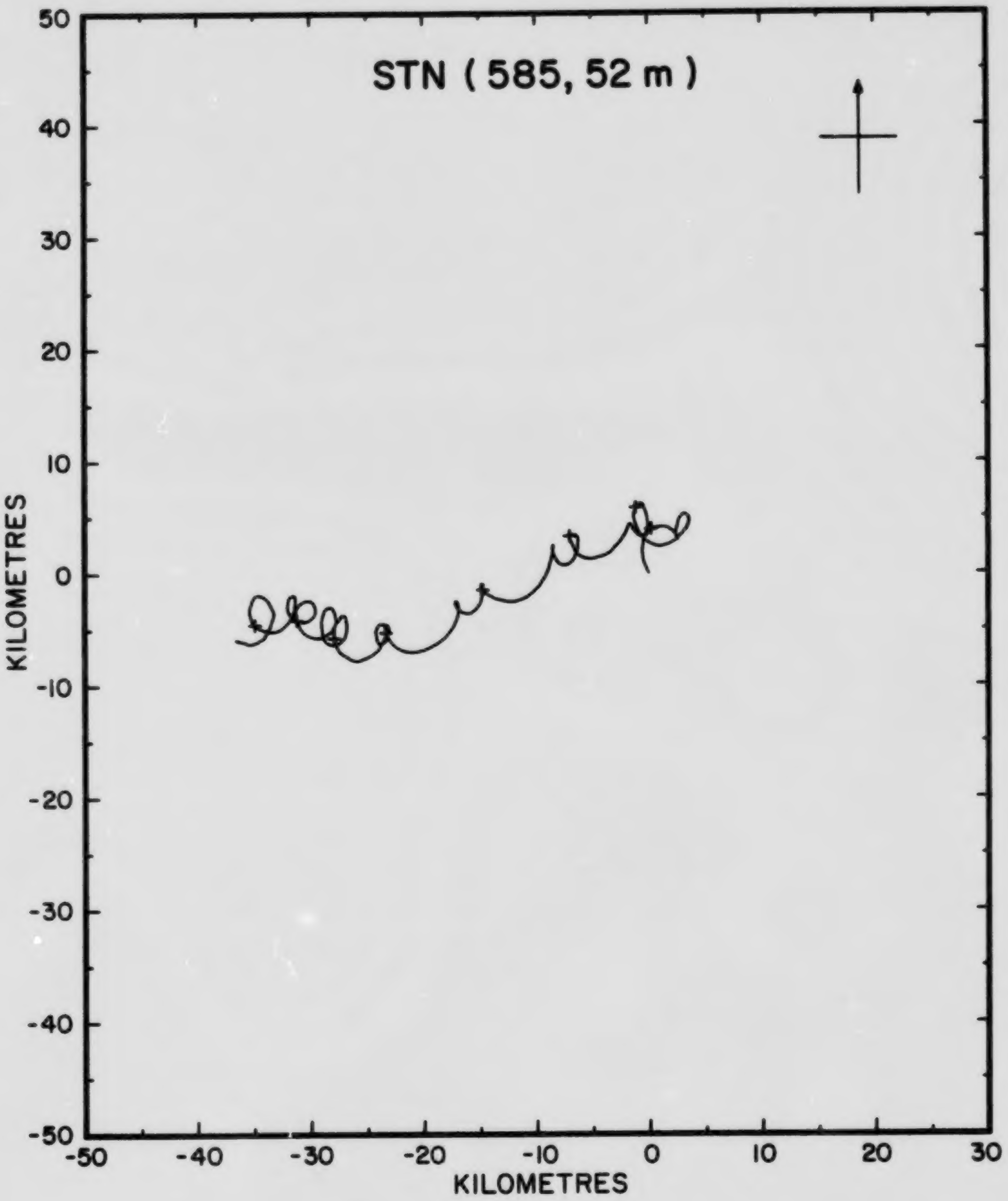

STN (585, 52 m)
50
40
30
20
10
0
-10
-20
-30
-40
-50
KILOMETRES
-50
-40
-30
-20
-10
0
10
20
30
KILOMETRES

Fig. 20

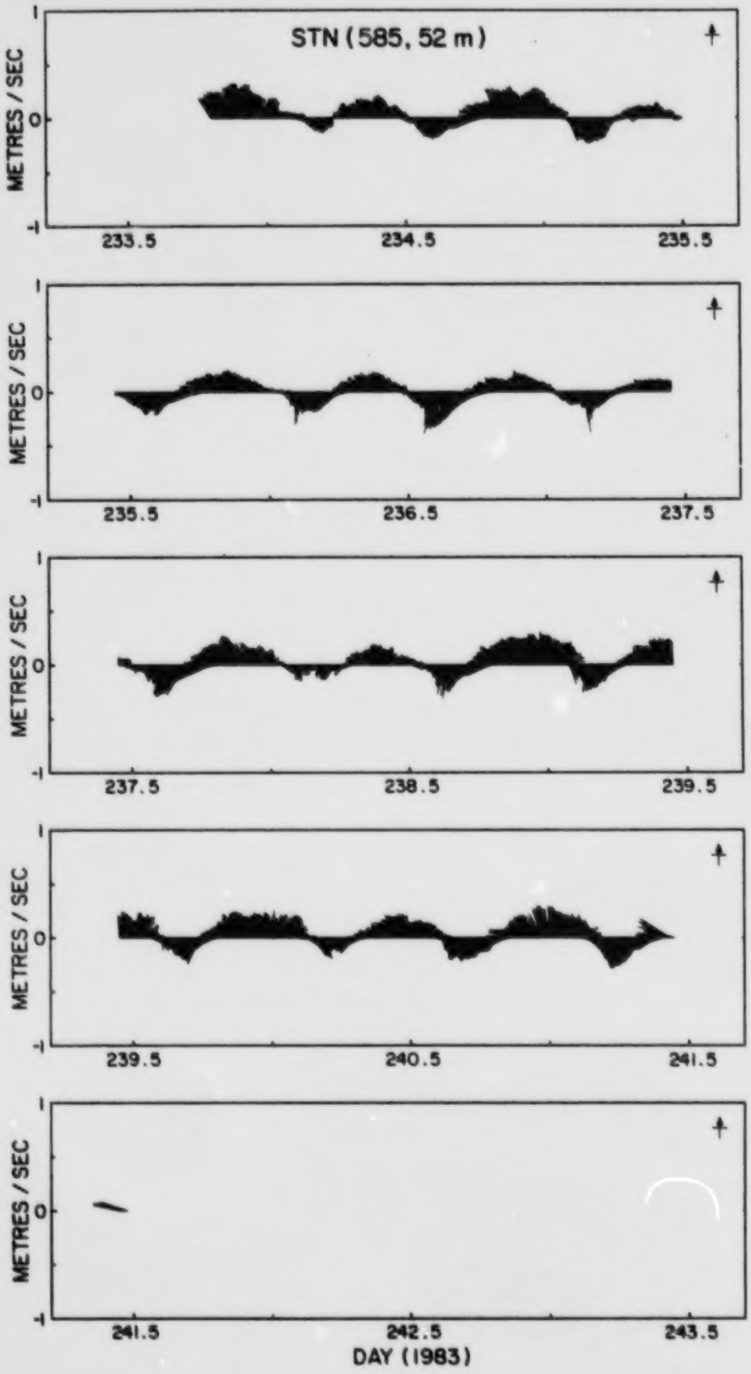

STN (585, 52 m)
METRES / SEC
1
0
-1
233.5
234.5
235.5
236.5
237.5
238.5
239.5
240.5
241.5
242.5
243.5
DAY (1983)

Fig. 21

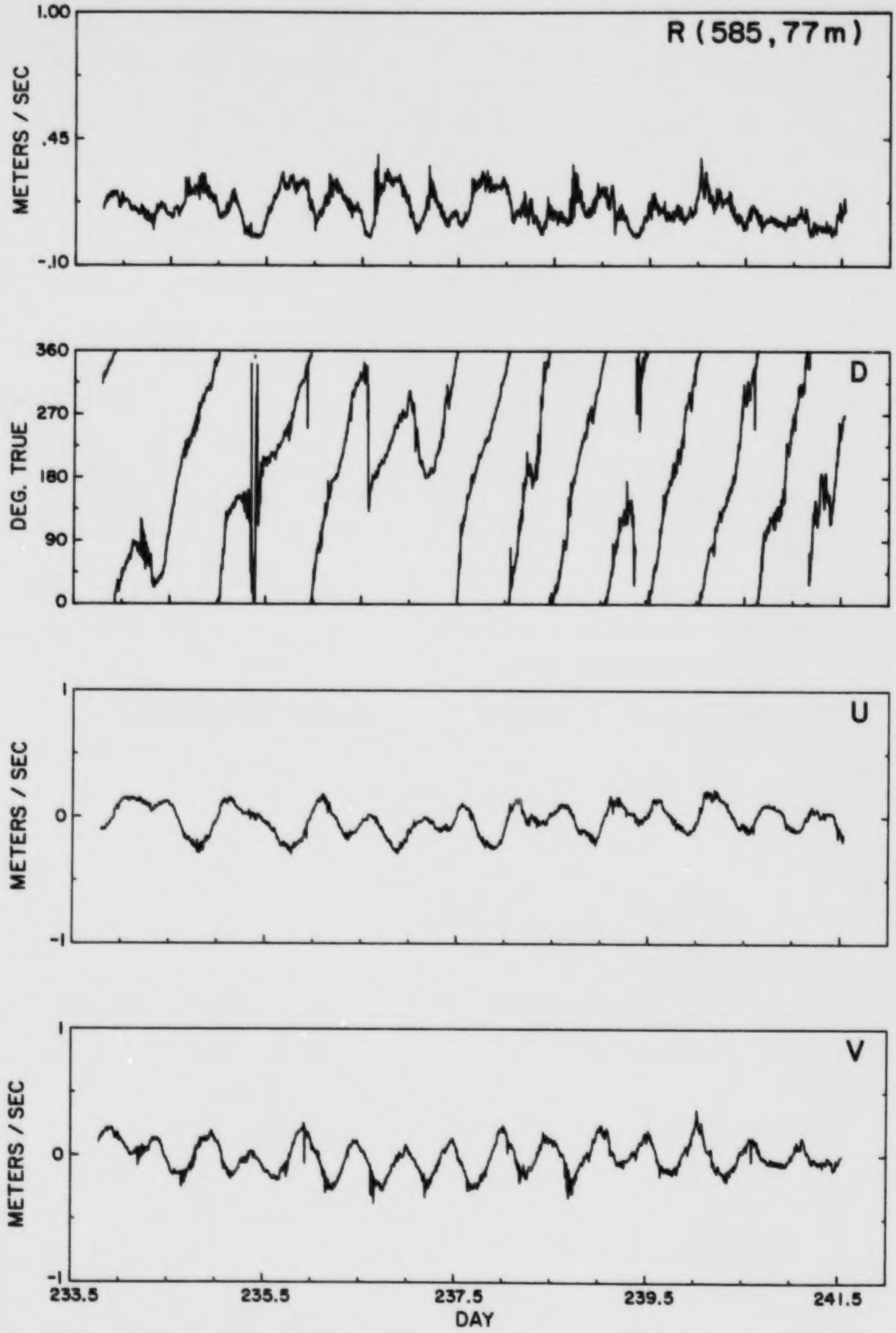

R (585,77m)
1.00
.45
-.10
METERS / SEC
D
360
270
180
90
0
DEG. TRUE
U
1
0
-1
METERS / SEC
V
1
0
-1
METERS / SEC
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 22

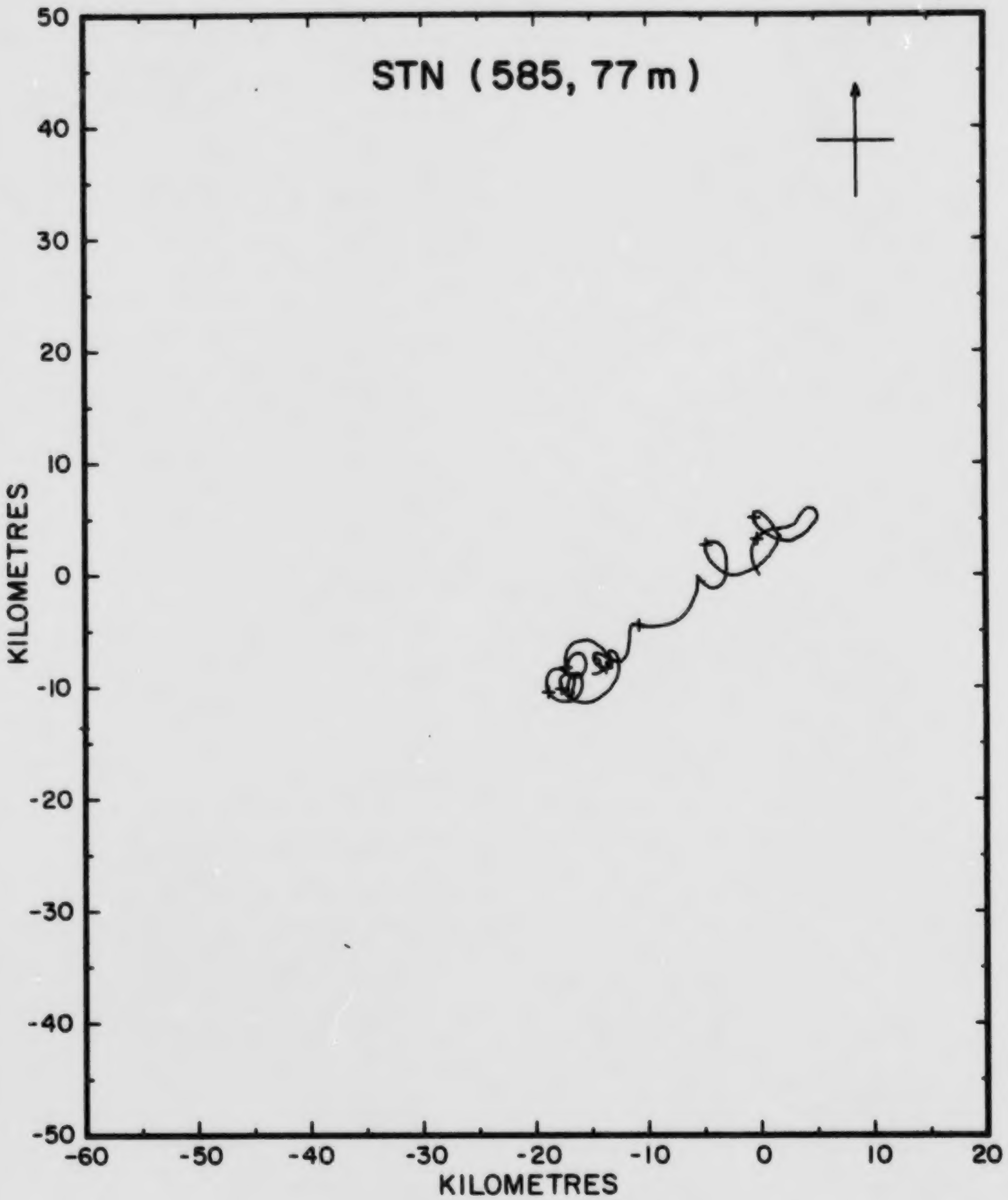

STN (585, 77 m)
KILOMETRES
KILOMETRES
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-50
-40
-30
-20
-10
0
10
20

Fig. 23

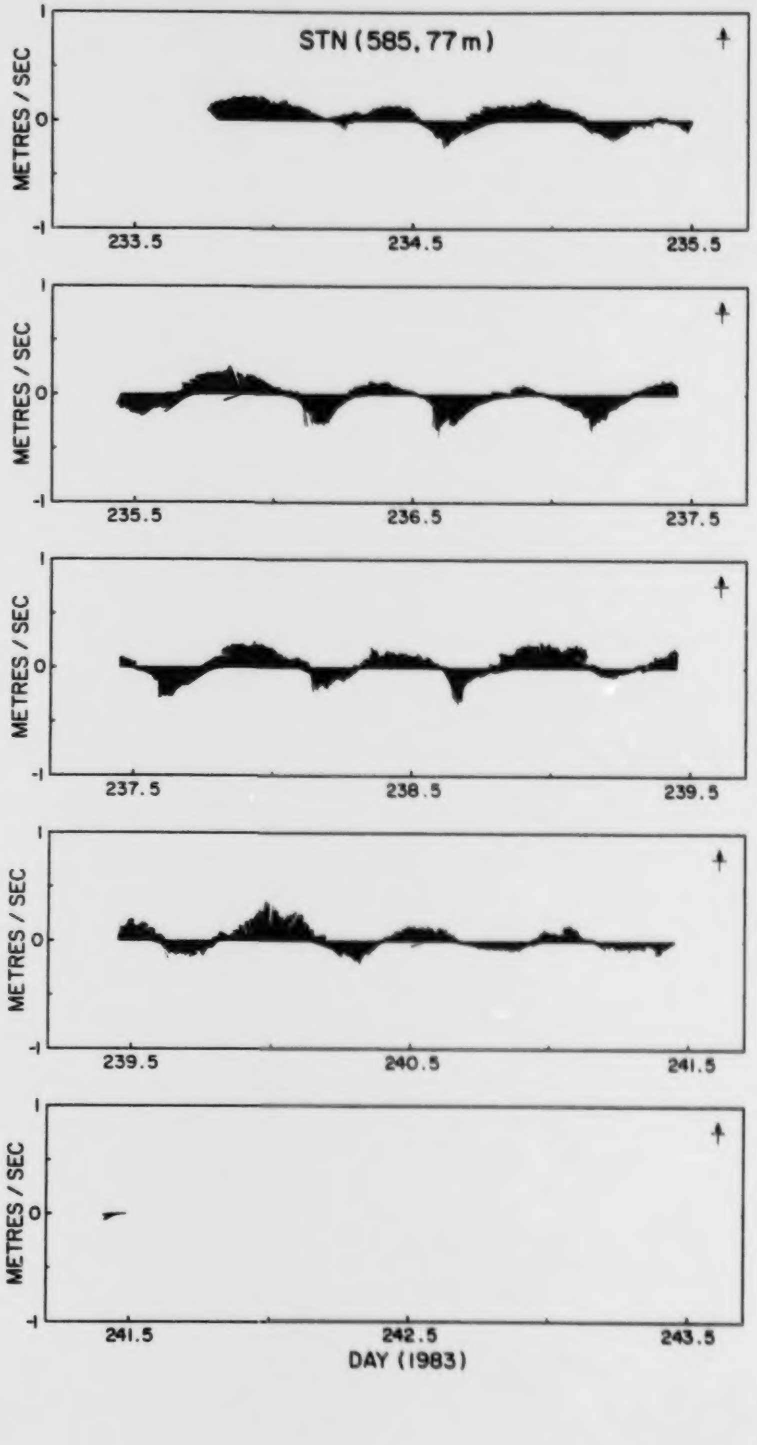

STN (585, 77 m)
METRES / SEC
1
0
-1
233.5
234.5
235.5
235.5
236.5
237.5
237.5
238.5
239.5
239.5
240.5
241.5
241.5
242.5
243.5
DAY (1983)

Fig. 24

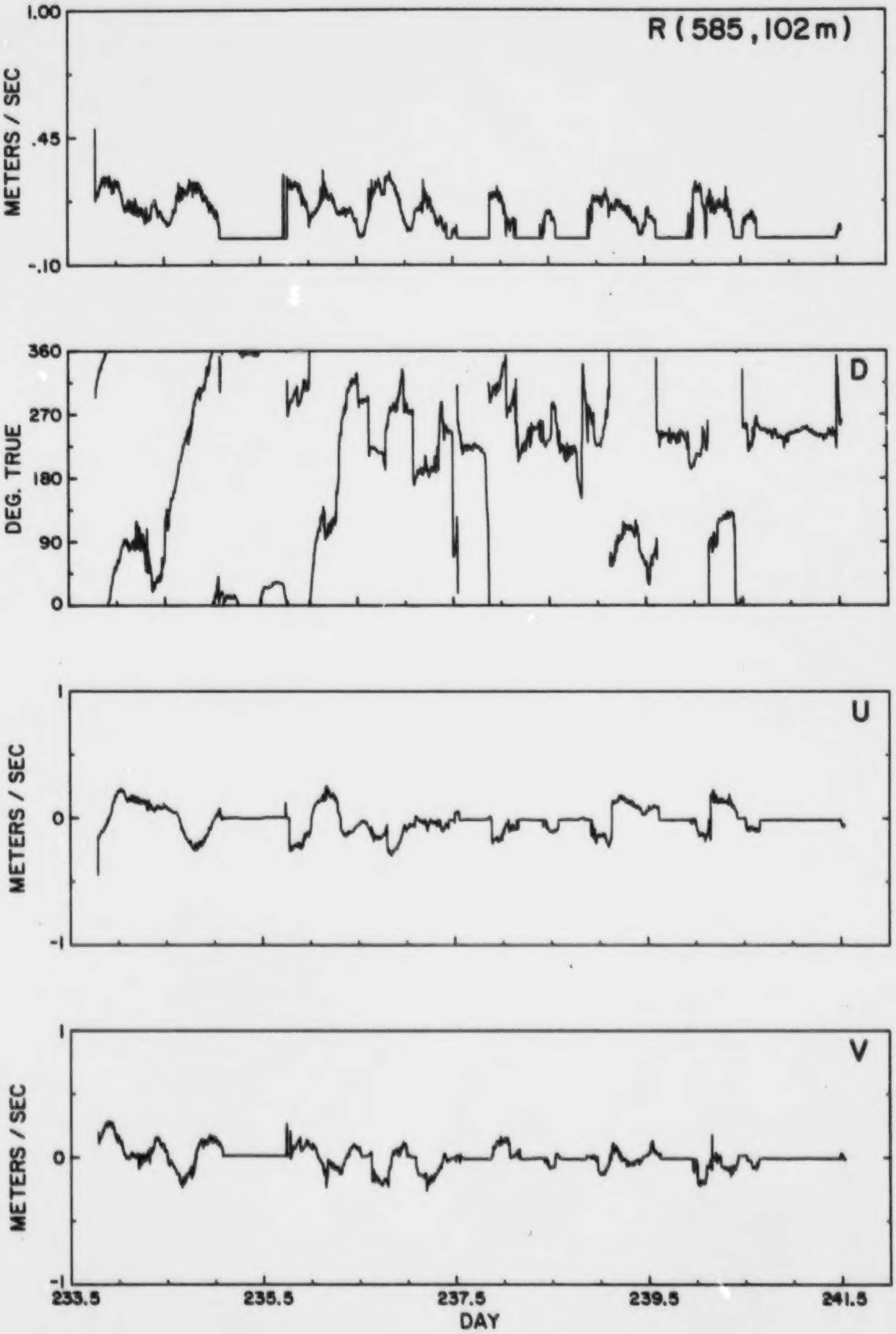

R (585, 102 m)
METERS / SEC
1.00
.45
-.10
D
DEG. TRUE
360
270
180
90
0
U
METERS / SEC
1
0
-1
V
METERS / SEC
1
0
-1
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 25

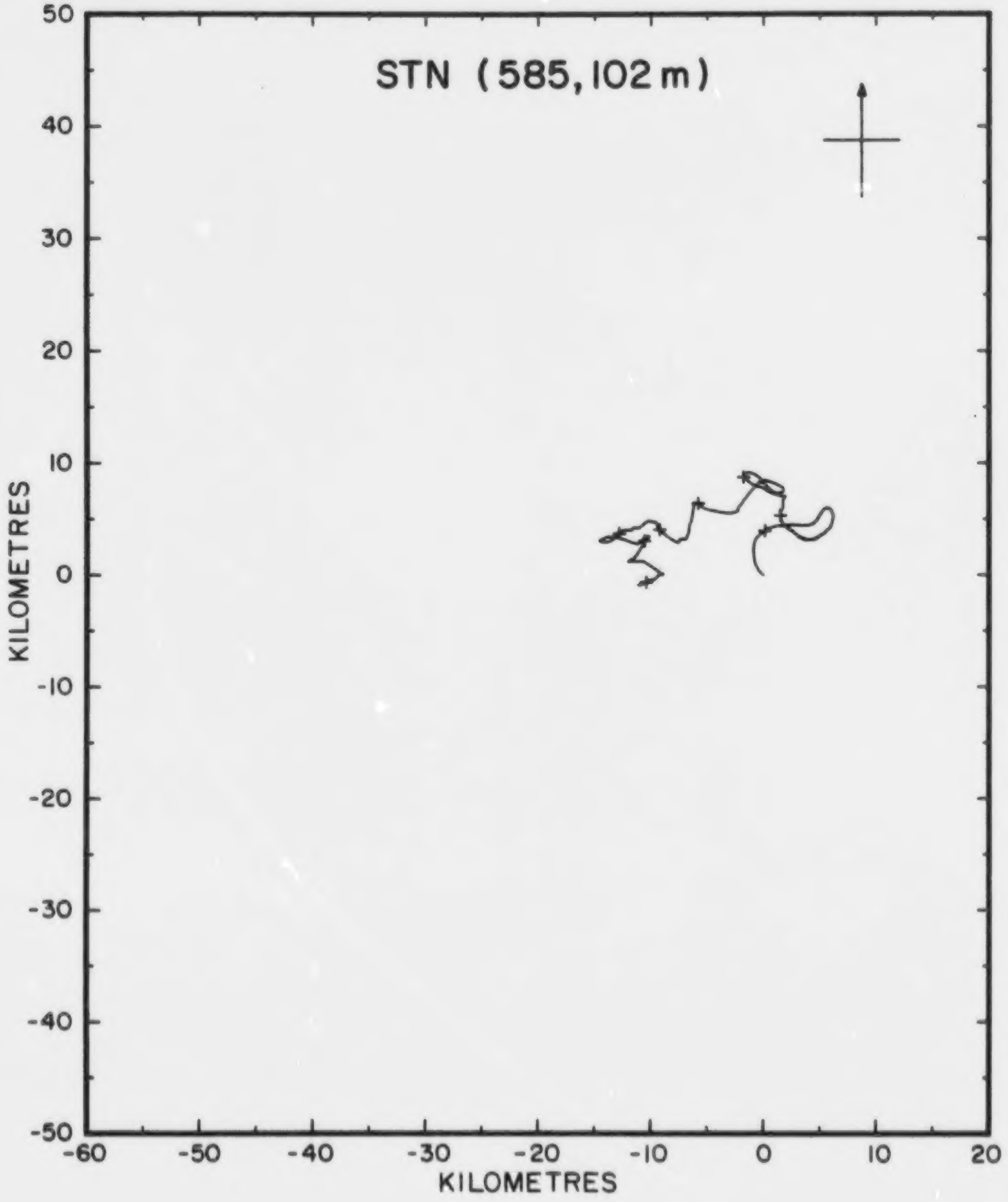

STN (585, 102 m)
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-50
-40
-30
-20
-10
0
10
20
KILOMETRES
KILOMETRES

Fig. 23

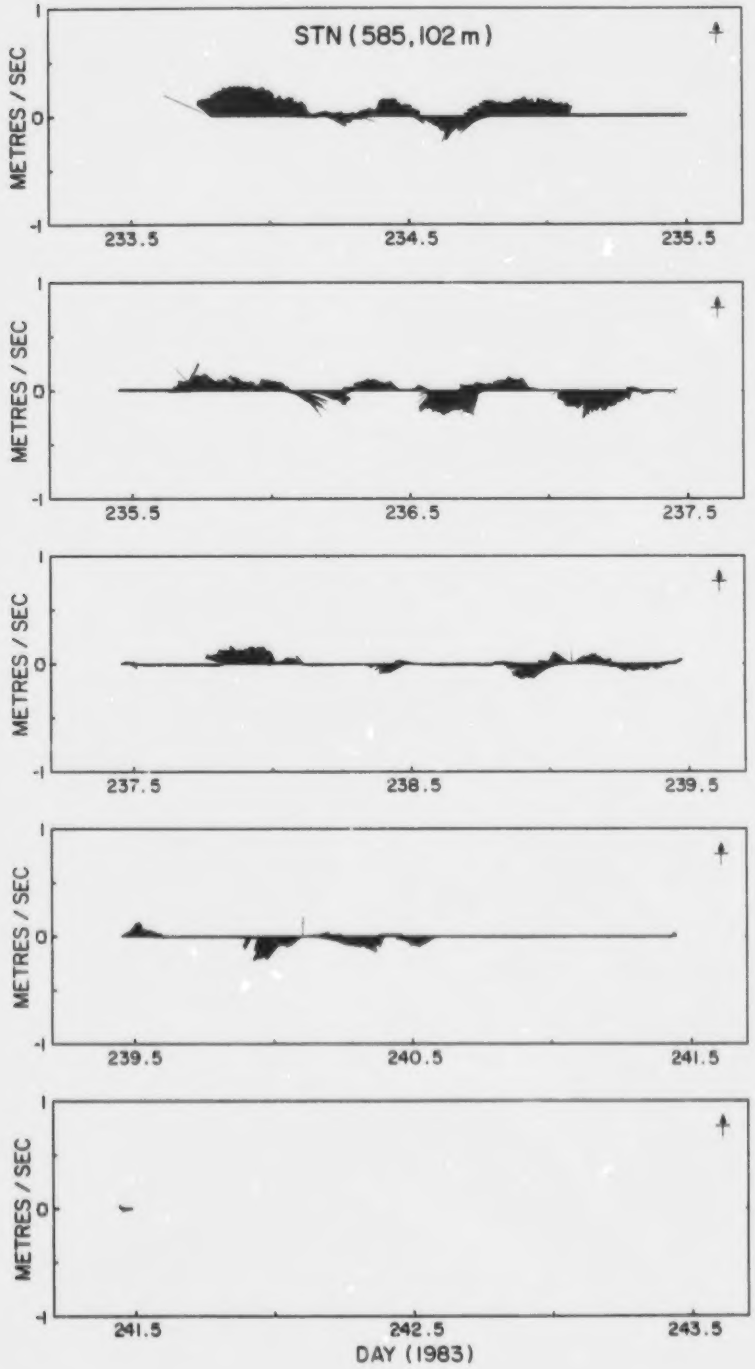

STN (585, 102 m)
METRES / SEC
1
0
-1
233.5
234.5
235.5
235.5
236.5
237.5
237.5
238.5
239.5
239.5
240.5
241.5
241.5
242.5
243.5
DAY (1983)

Fig. 27

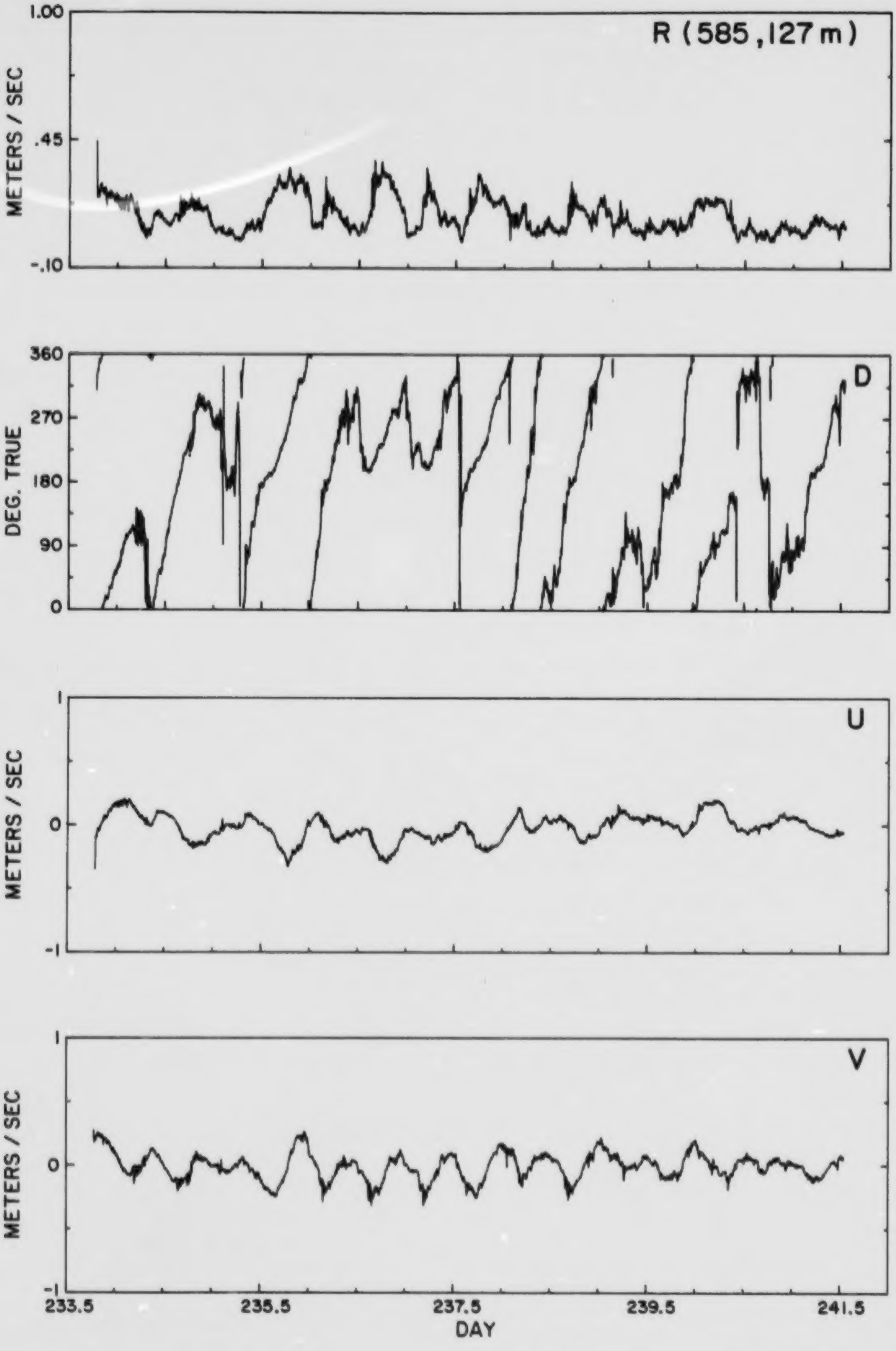

R (585,127m)
METERS / SEC
1.00
.45
-.10
D
DEG. TRUE
360
270
180
90
0
U
METERS / SEC
1
0
-1
V
METERS / SEC
1
0
-1
233.5
235.5
237.5
239.5
241.5
DAY

Fig. 28

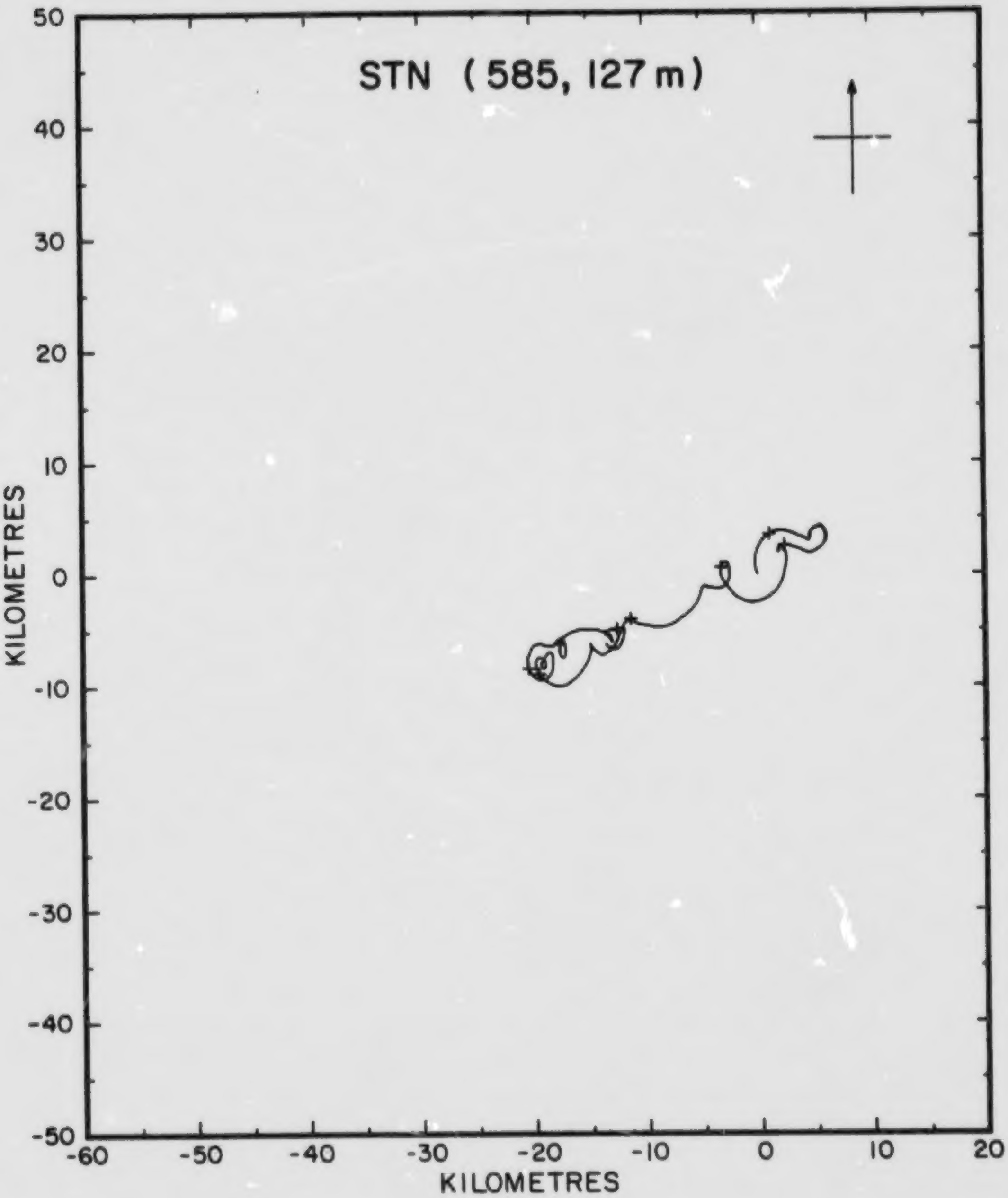

STN (585, 127 m)
50
40
30
20
10
0
-10
-20
-30
-40
-50
KILOMETRES
-60
-50
-40
-30
-20
-10
0
10
20
KILOMETRES

Fig. 29

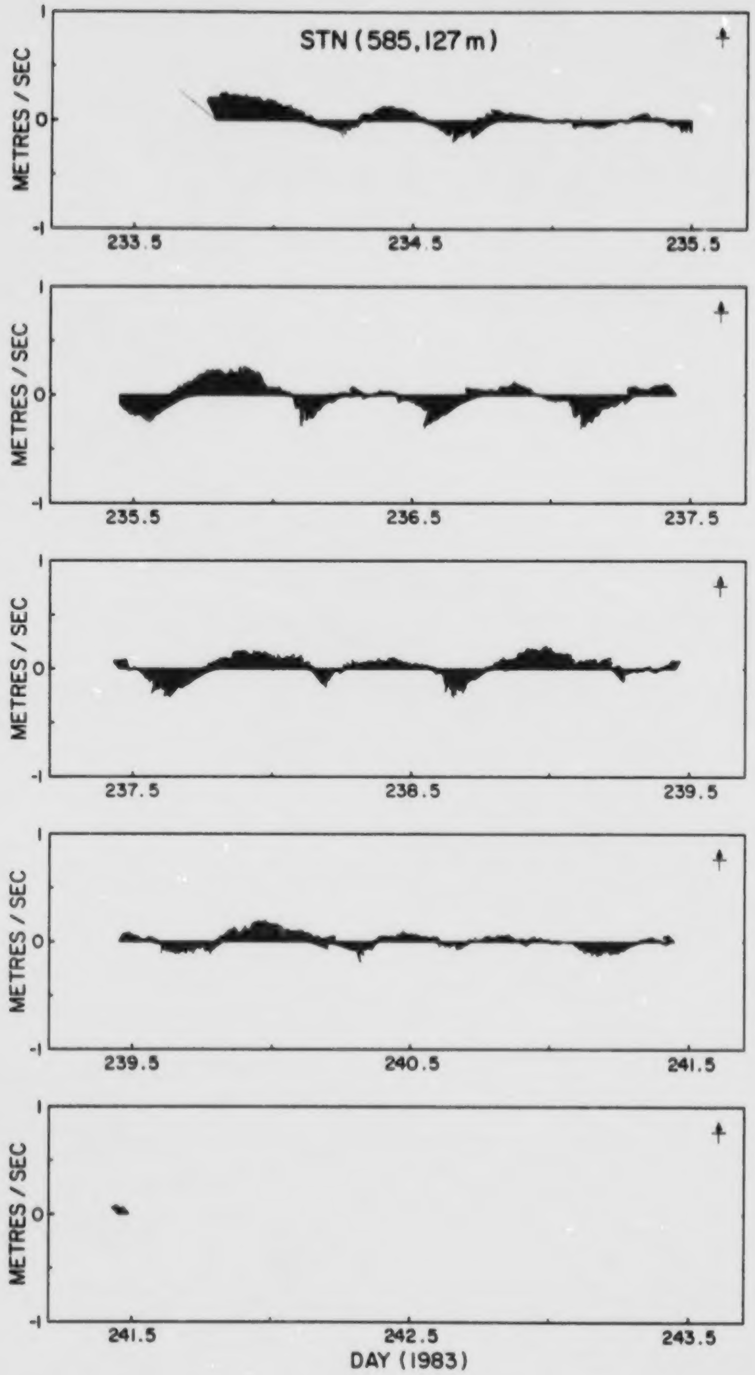

STN (585, 127 m)
METRES / SEC
1
0
-1
233.5
234.5
235.5
235.5
236.5
237.5
237.5
238.5
239.5
239.5
240.5
241.5
241.5
242.5
243.5
DAY (1983)

Fig. 30

Figure 31

Time-series of temperature from moored thermistor chain at mooring #584. The moored depth of each temperature sensor is indicated in the diagram. The offset on the temperature axis is 5°C.

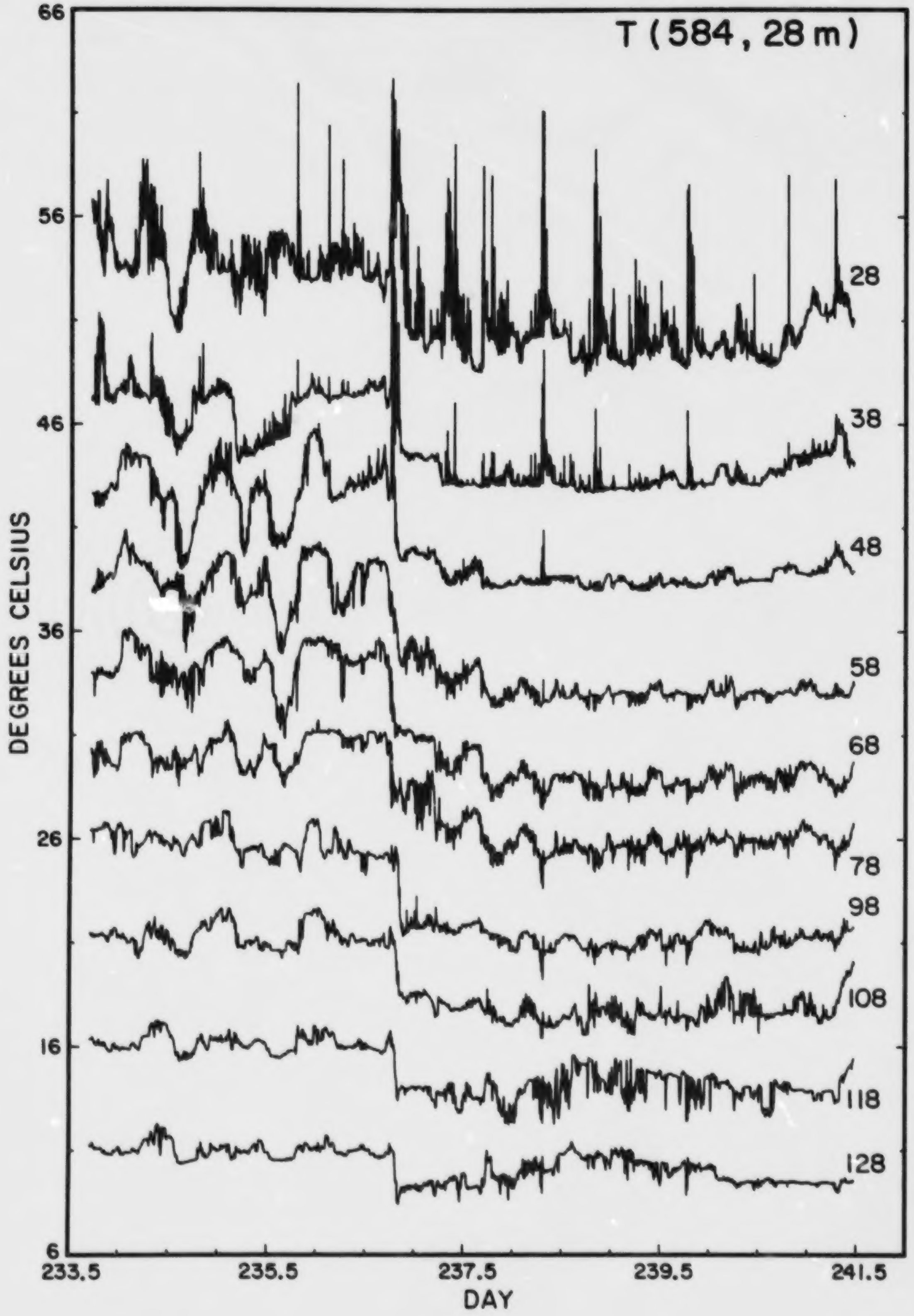

T (584, 28 m)
DEGREES CELSIUS
66
56
46
36
26
16
6
233.5
235.5
237.5
239.5
241.5
DAY
28
38
48
58
68
78
98
108
118
128

Fig. 31

Figures 32-59

BATFISH station 33; 14 sections of Temperature, Salinity and Sigma-t vs. pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

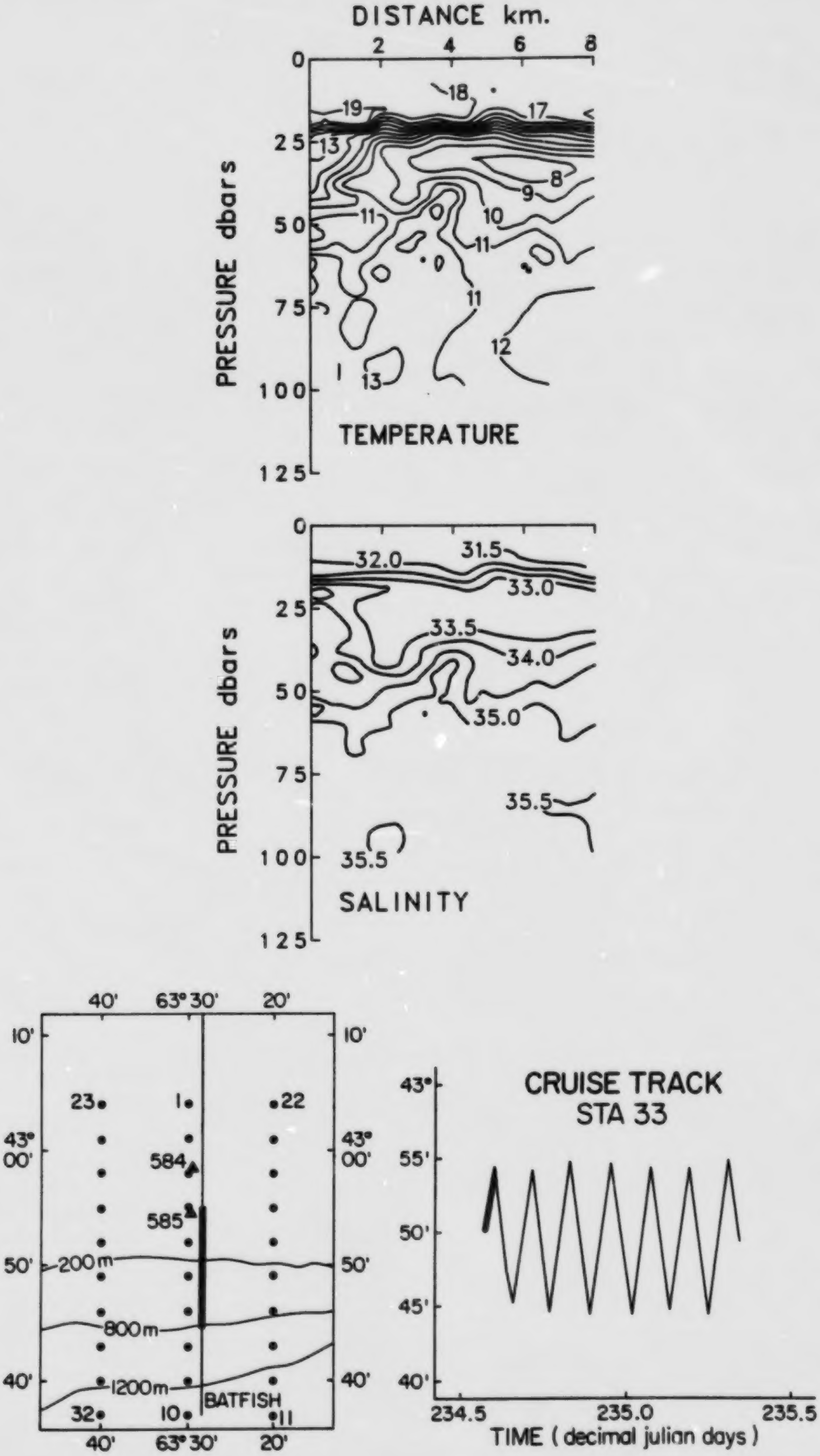

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
19
18
17
13
8
9
10
11
11
11
12
13
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
31.5
33.0
33.5
34.0
35.0
35.5
35.5
SALINITY
40'
63°30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 32

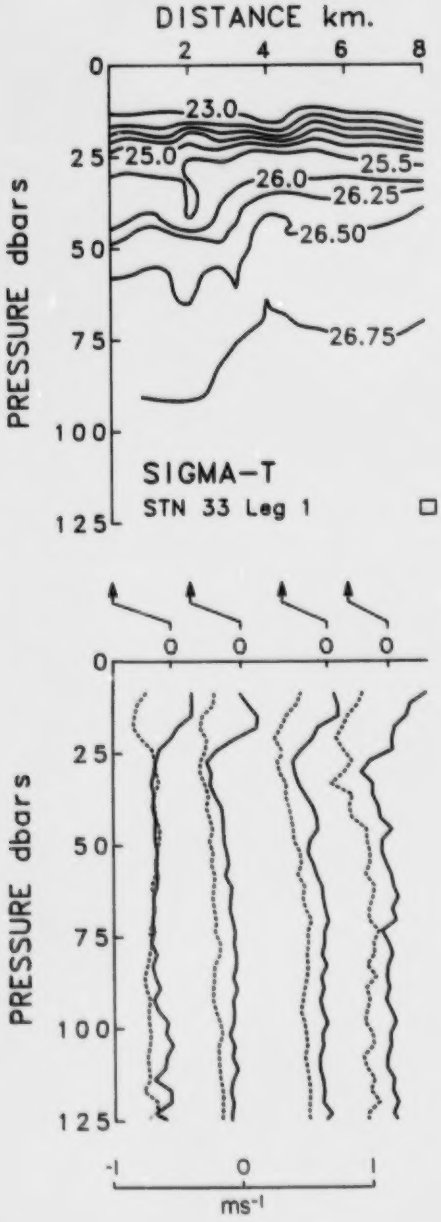

DISTANCE km.
0
2
4
6
8
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 1
□
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 33

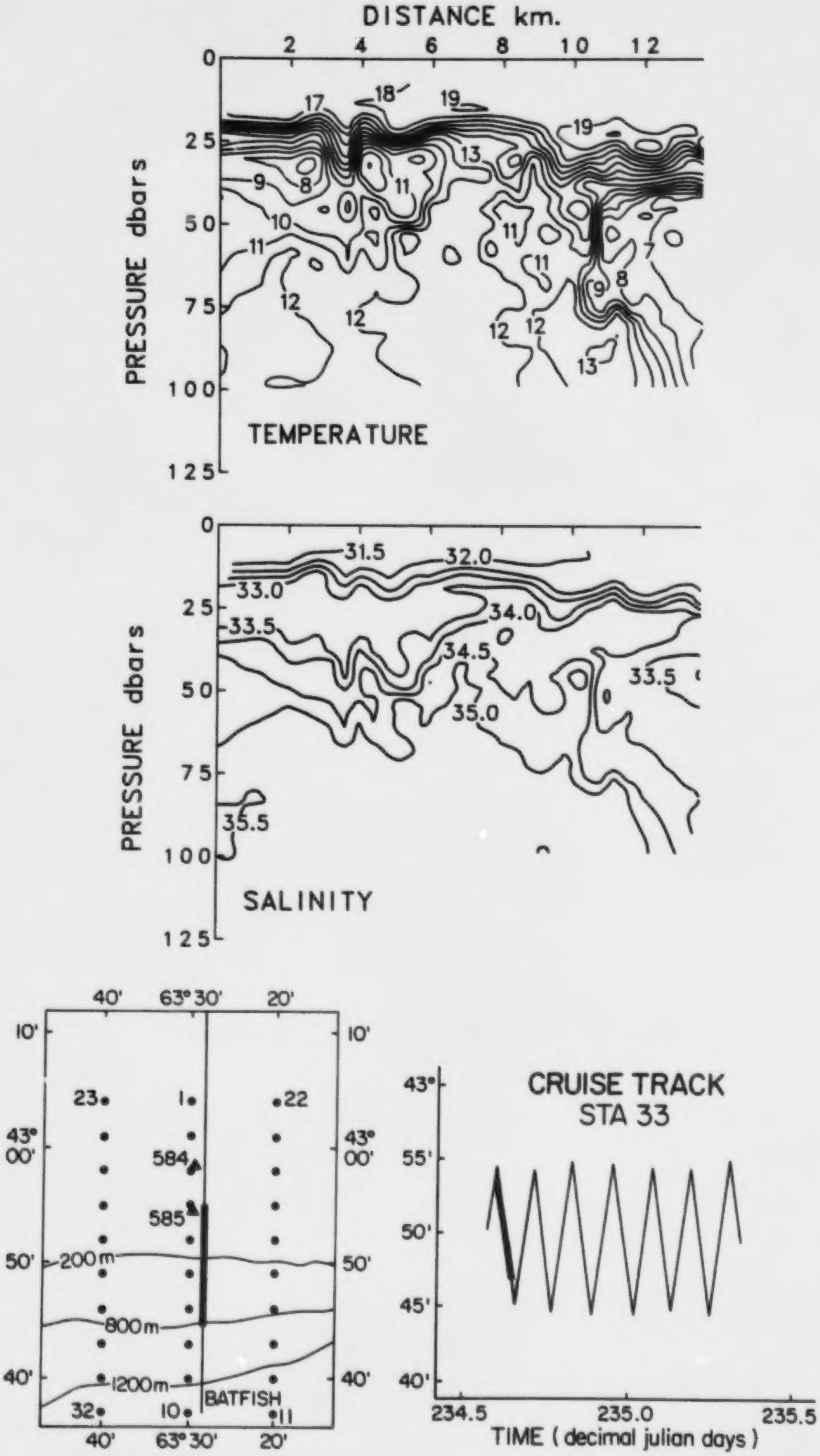

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
17
18
19
19
13
9
8
11
0
10
11
11
11
7
12
12
12
12
9
8
13
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
33.0
34.0
33.5
34.5
33.5
35.0
35.5
SALINITY
40'
63°30'
20'
10'
10'
23
1
22
43°
00'
43°
00'
584
585
50'
50'
200m
800m
1200m
40'
40'
32
10
11
BATFISH
40'
63°30'
20'
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 34

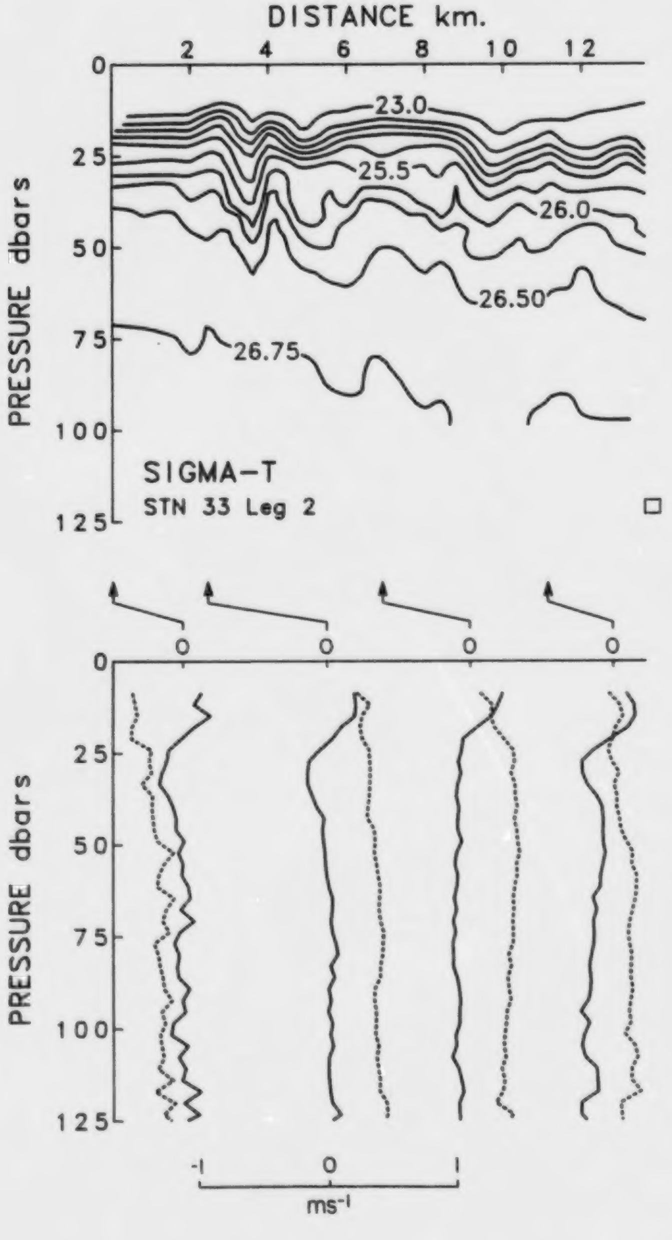

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.50
26.75
SIGMA-T
STN 33 Leg 2
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹

Fig. 35

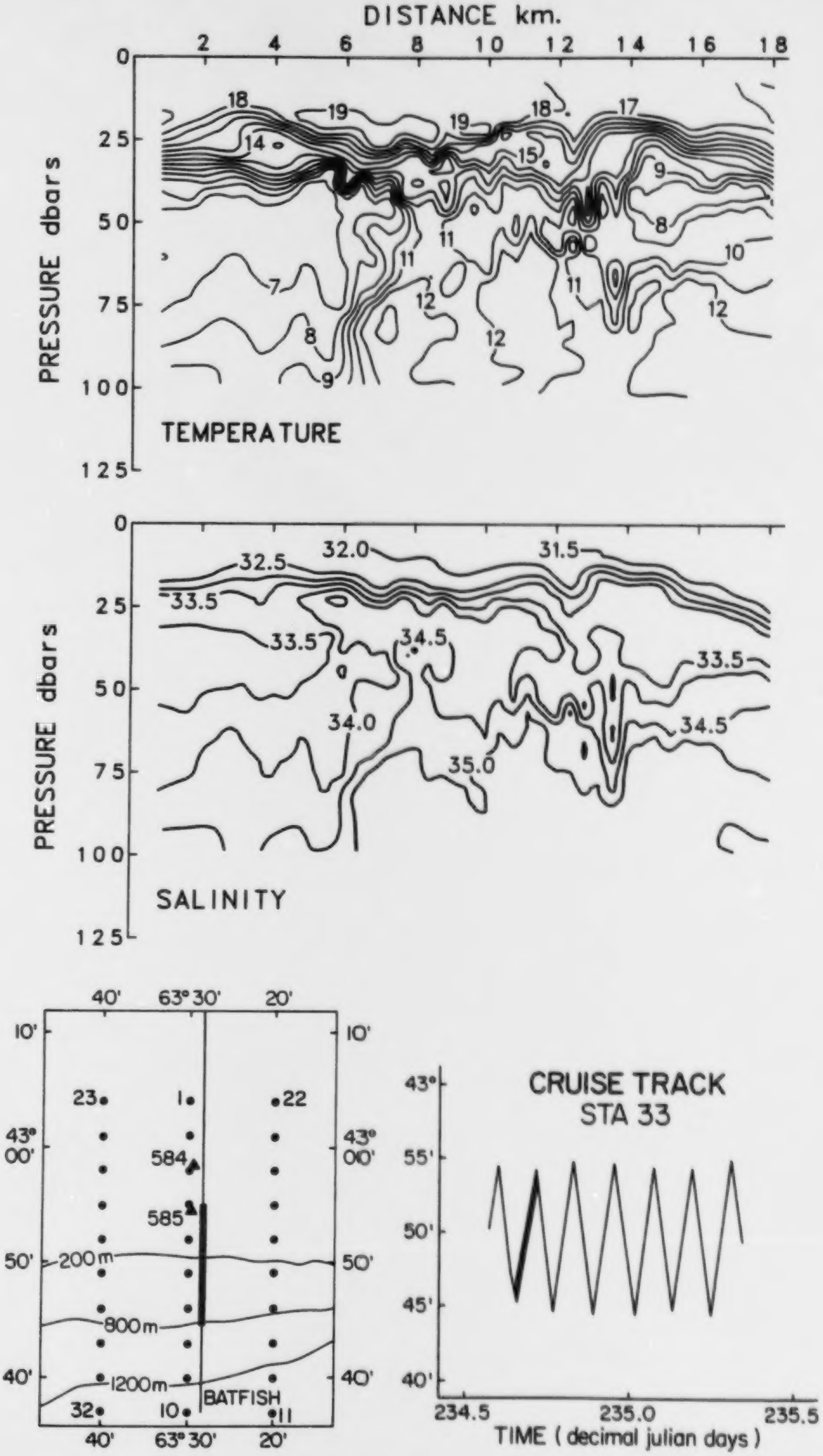

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
18
19
19
18
17
14
16
15
9
8
10
11
11
11
12
12
12
7
8
9
TEMPERATURE
32.5
32.0
31.5
33.5
33.5
34.5
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 36

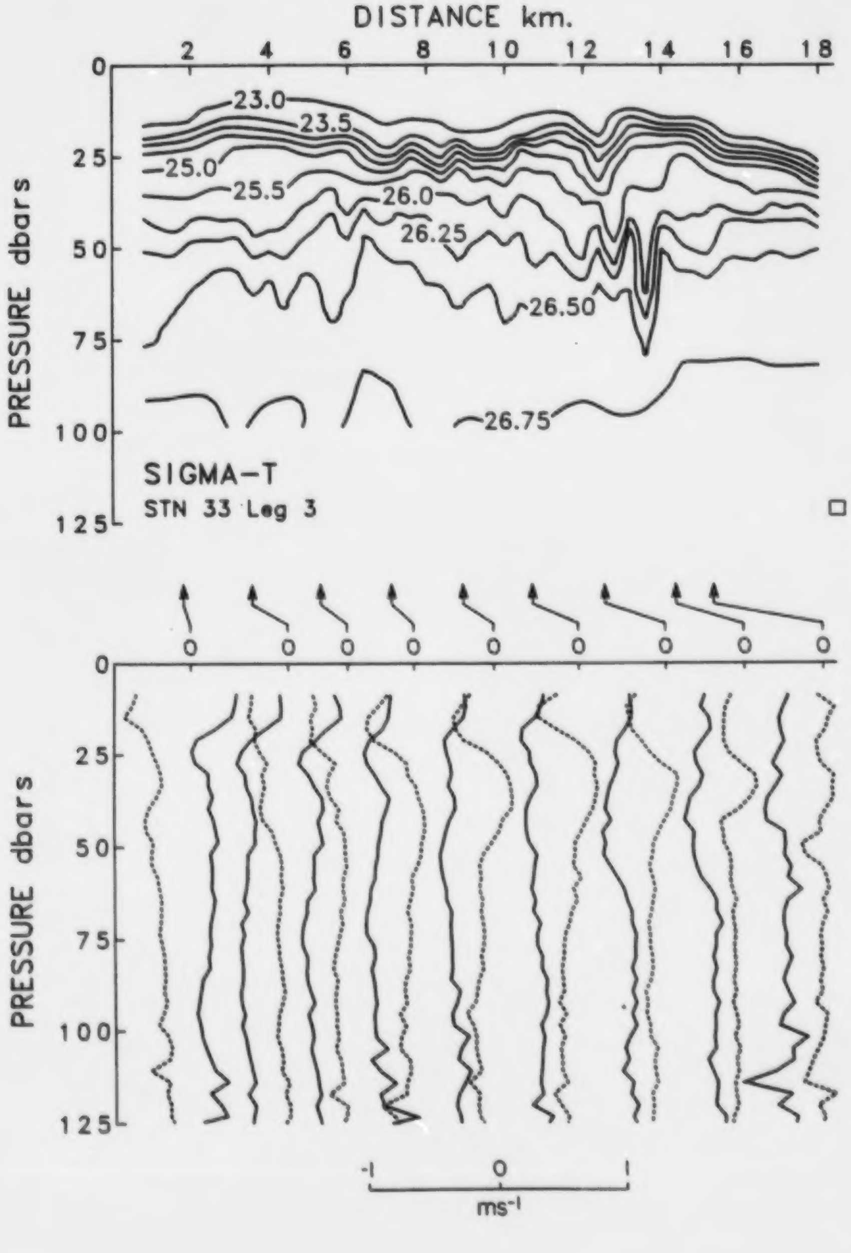

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 3
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 37

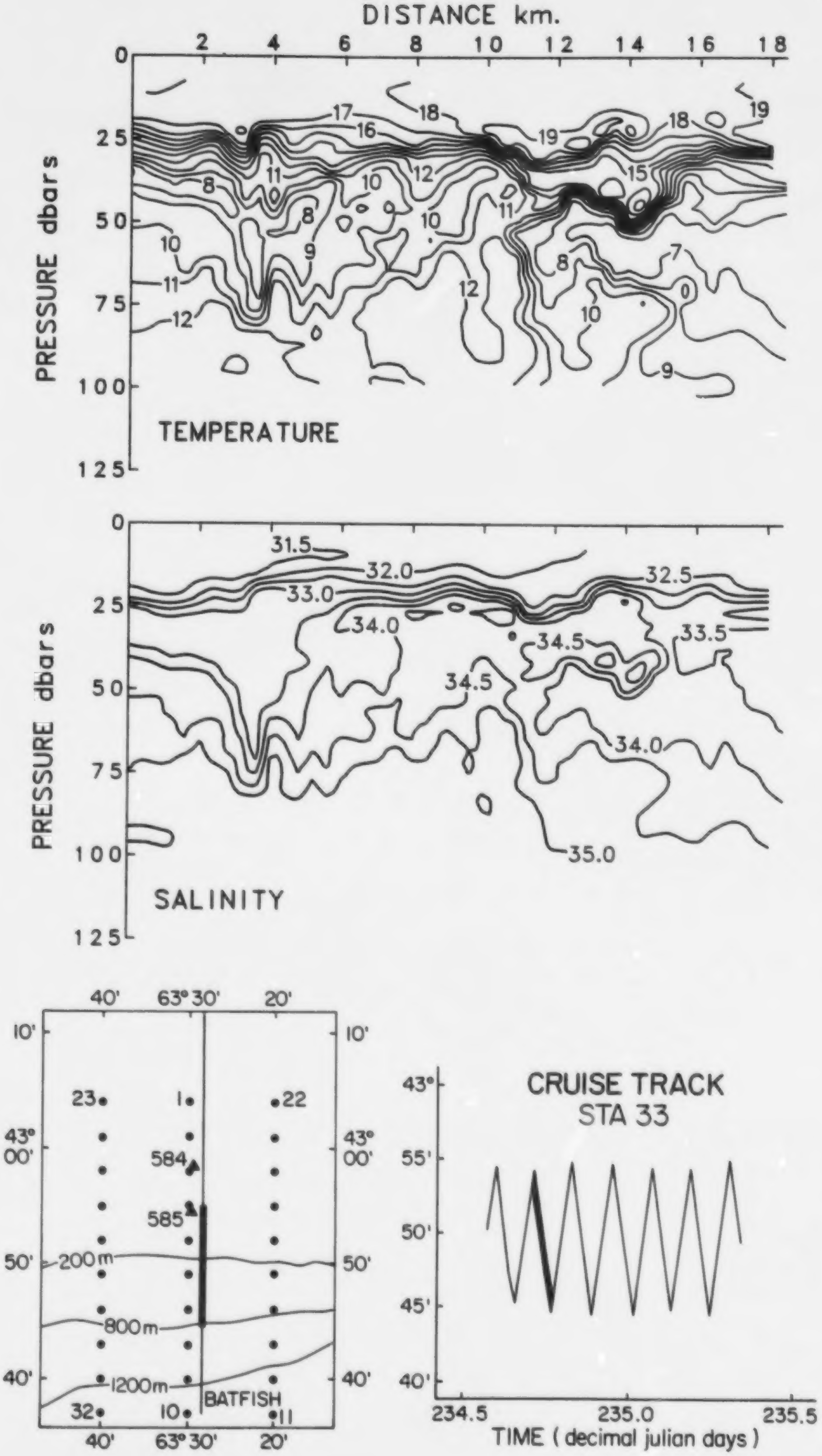

DISTANCE km.
2
4
6
8
10
12
14
16
18
PRESSURE dbars
0
25
50
75
100
125
17
18
16
19
18
19
11
8
10
12
15
8
9
10
11
8
7
10
11
12
12
10
9
TEMPERATURE
31.5
32.0
32.5
33.0
34.0
34.5
33.5
34.5
34.0
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 38

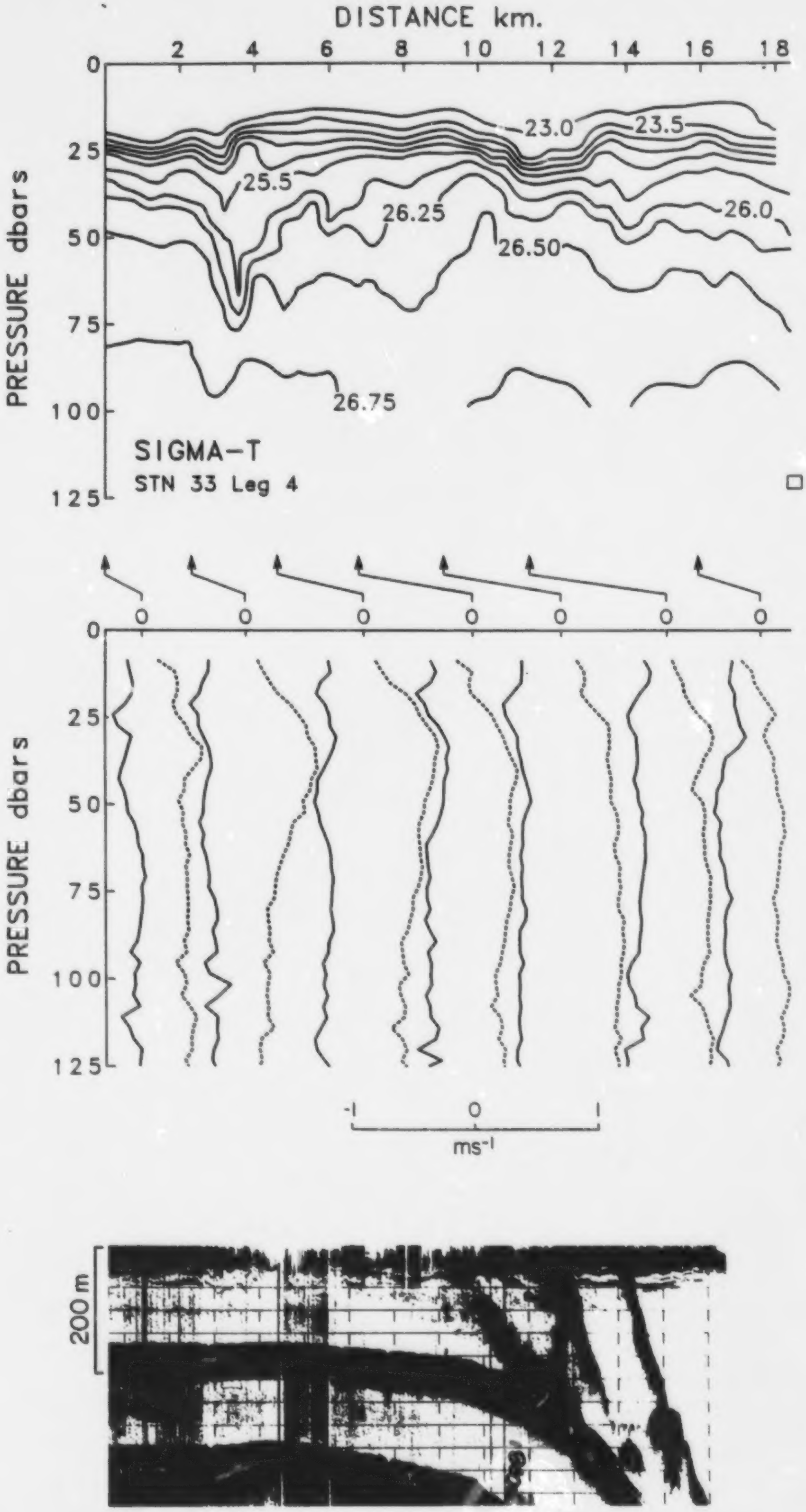

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
26.25
26.0
26.50
26.75
SIGMA-T
STN 33 Leg 4
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 39

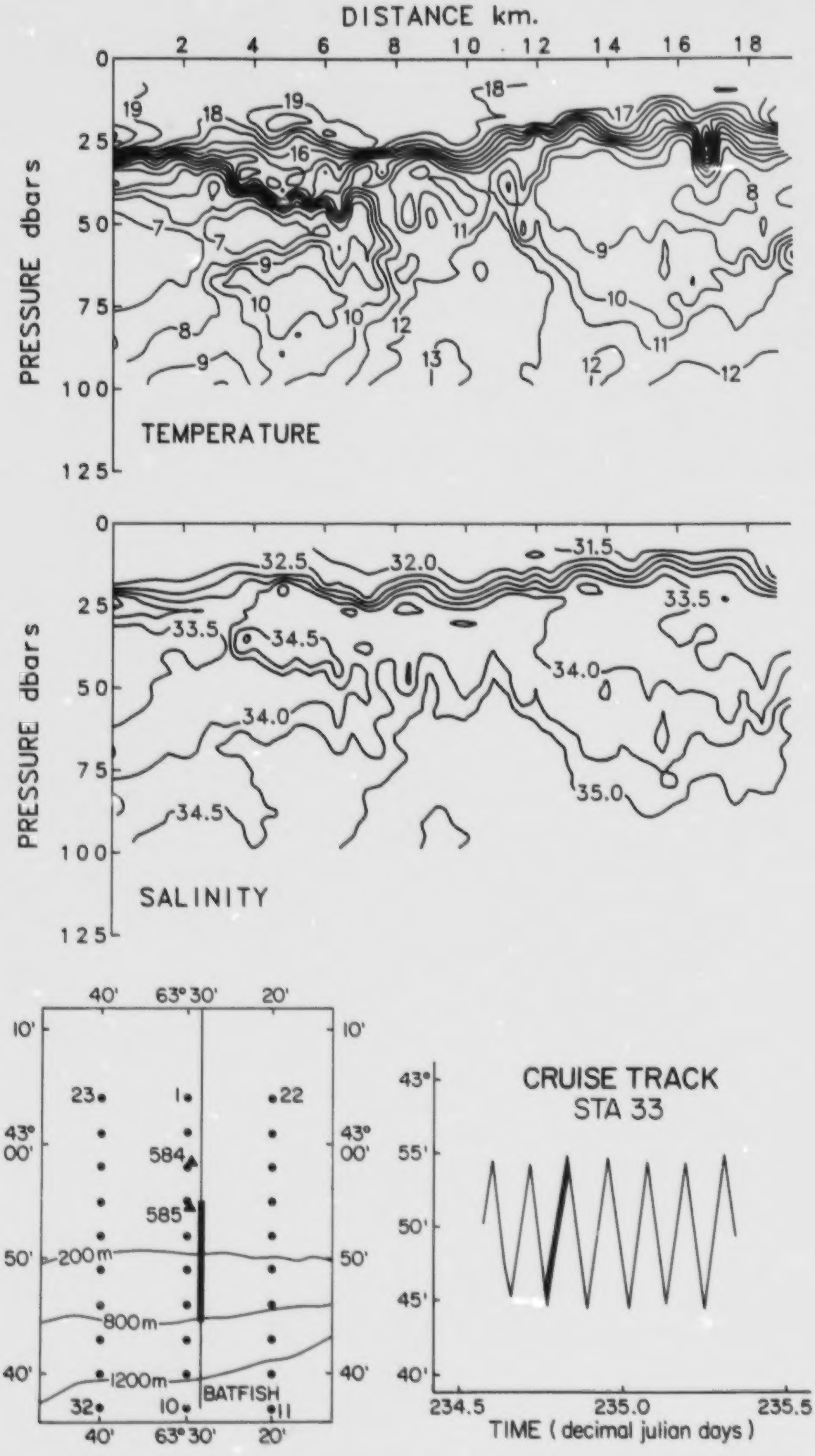

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
19
18
19
18
17
16
8
7
7
9
11
9
10
10
10
12
8
9
13
12
11
12
TEMPERATURE
32.5
32.0
31.5
33.5
33.5
34.5
34.0
34.0
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
45'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 40

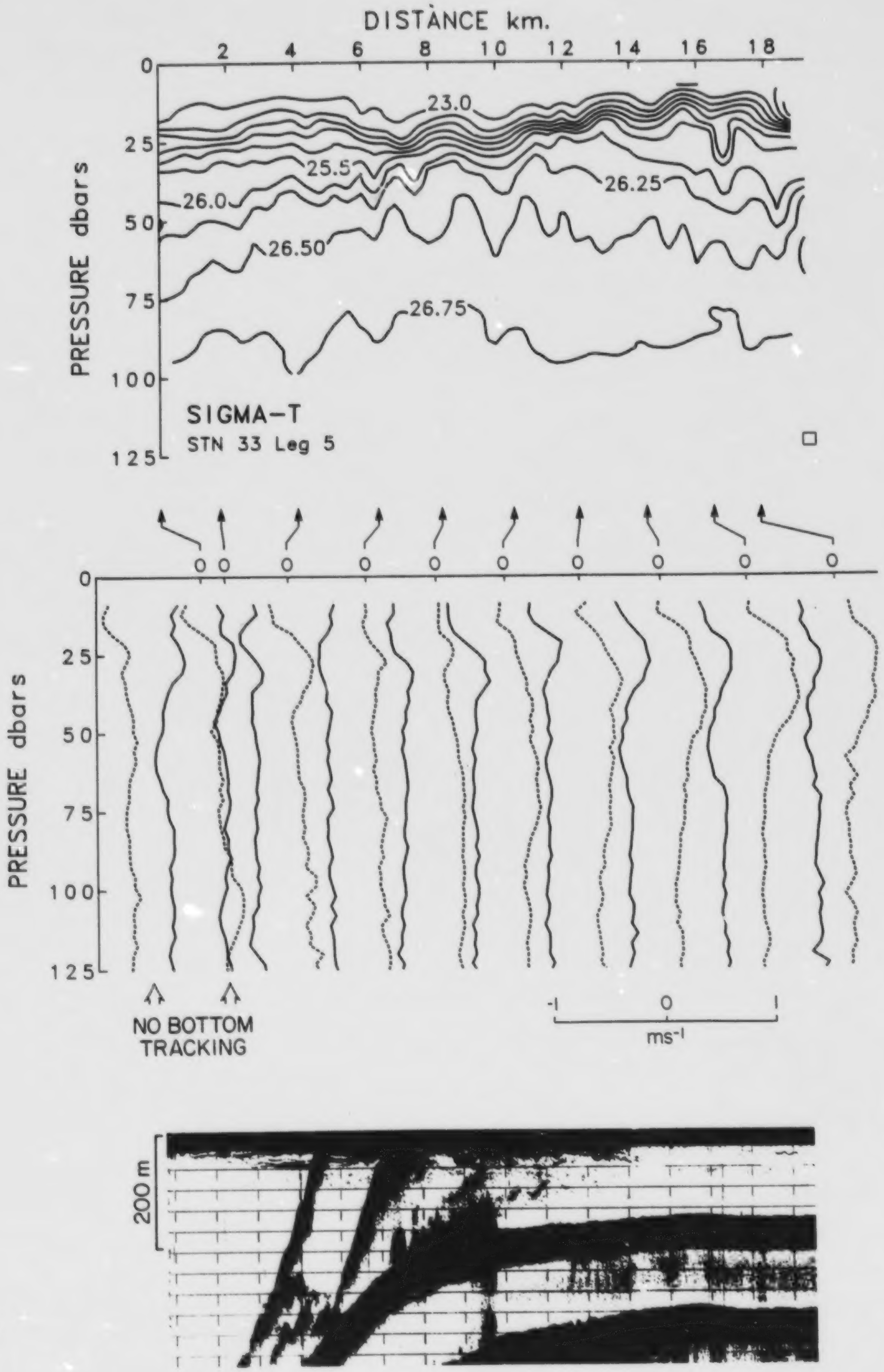

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 5
0
25
50
75
100
125
PRESSURE dbars
NO BOTTOM TRACKING
-1
0
1
ms-1
200 m

Fig. 41

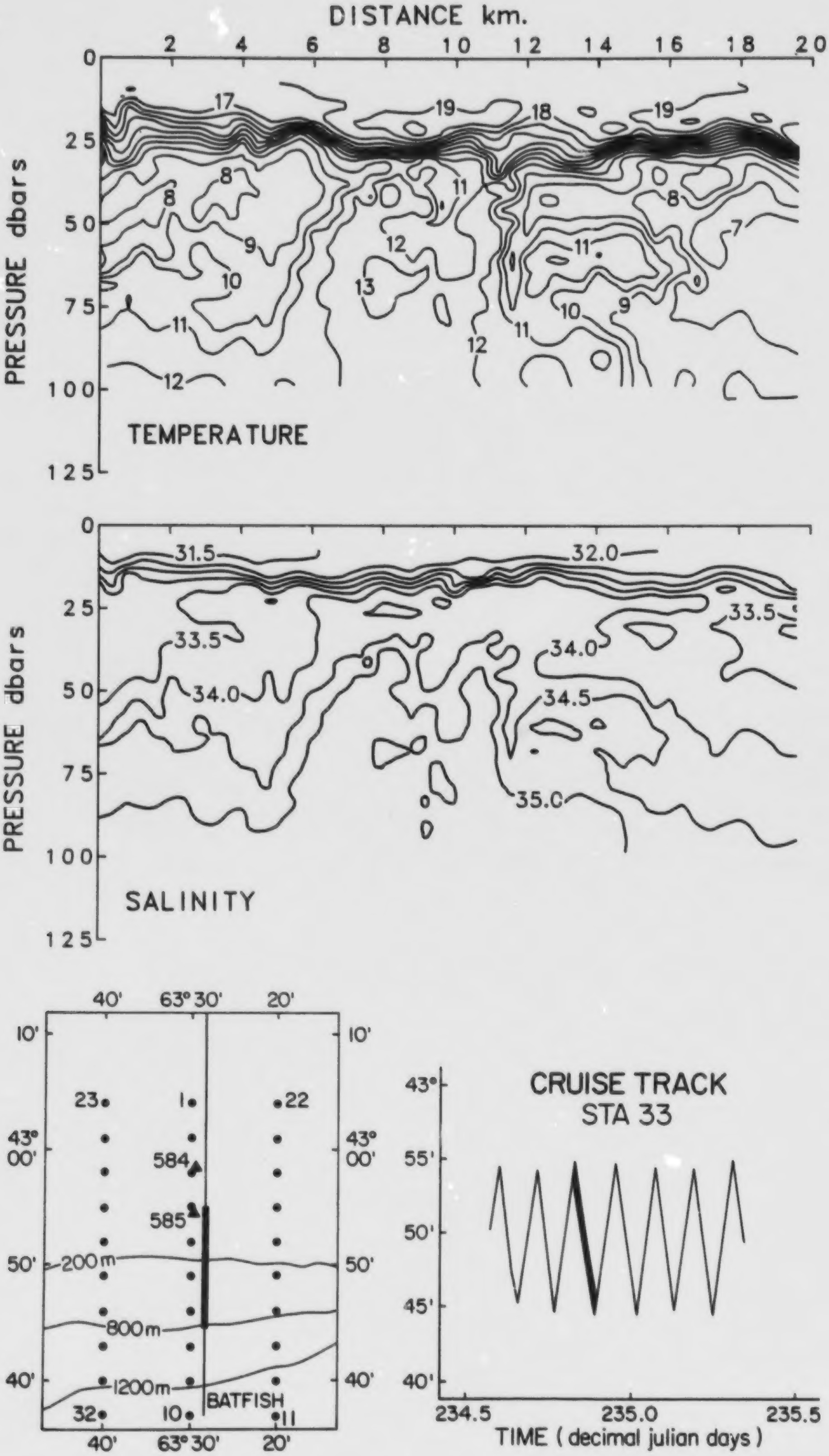

DISTANCE km.
2
4
6
8
10
12
14
16
18
20
0
25
50
75
100
125
PRESSURE dbars
17
19
18
19
8
8
11
9
12
11
7
10
13
10
9
11
12
11
12
TEMPERATURE
31.5
32.0
33.5
33.5
34.0
34.0
34.5
34.0
35.0
SALINITY
40'
63°30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 42

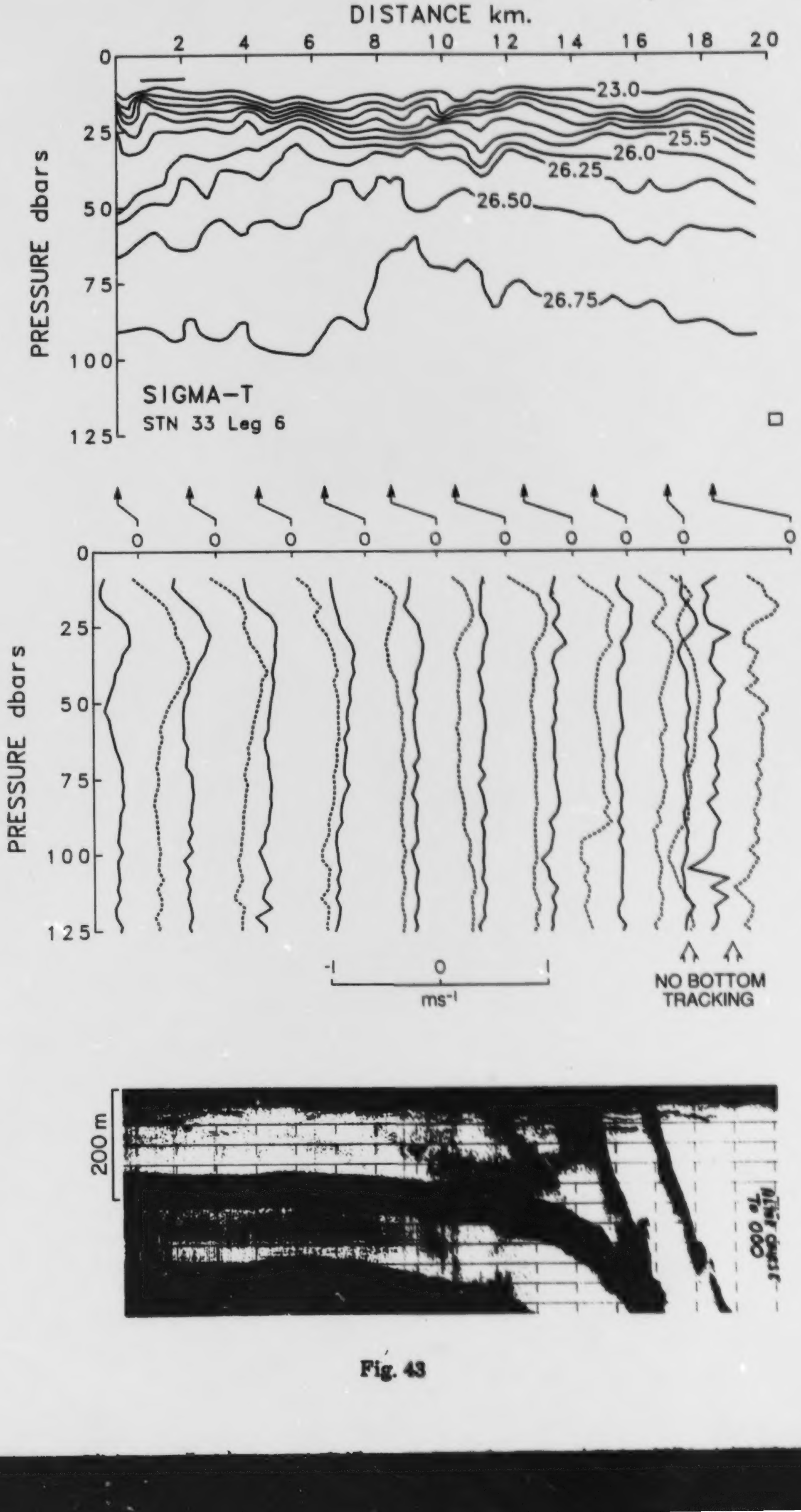

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
20
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 6
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
NO BOTTOM
TRACKING
200 m

Fig. 43

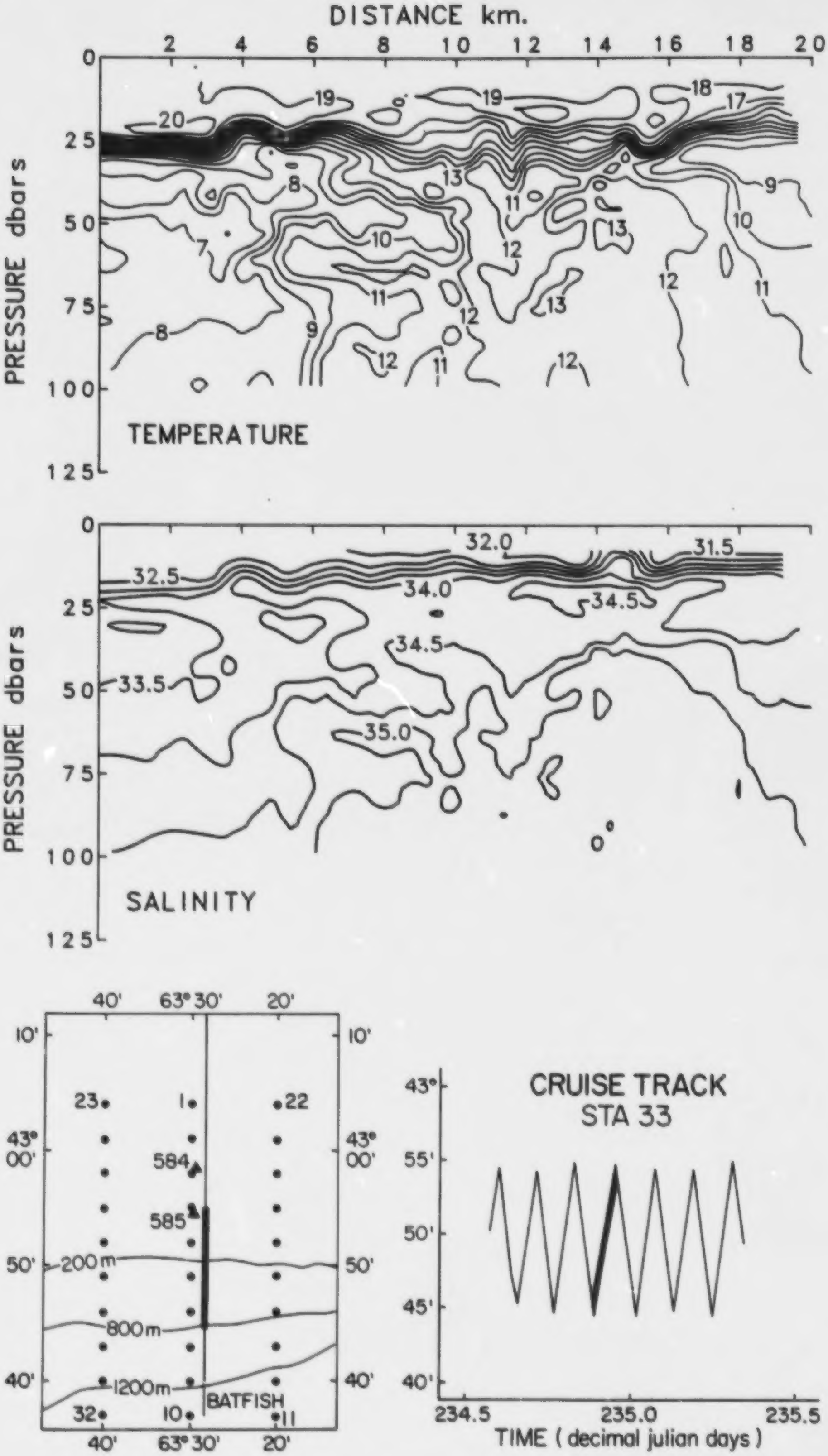

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
20
25
50
75
100
125
PRESSURE dbars
20
19
18
17
13
11
9
8
10
7
12
TEMPERATURE
32.5
32.0
31.5
34.0
34.5
33.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 33
43°
55'
45'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 44

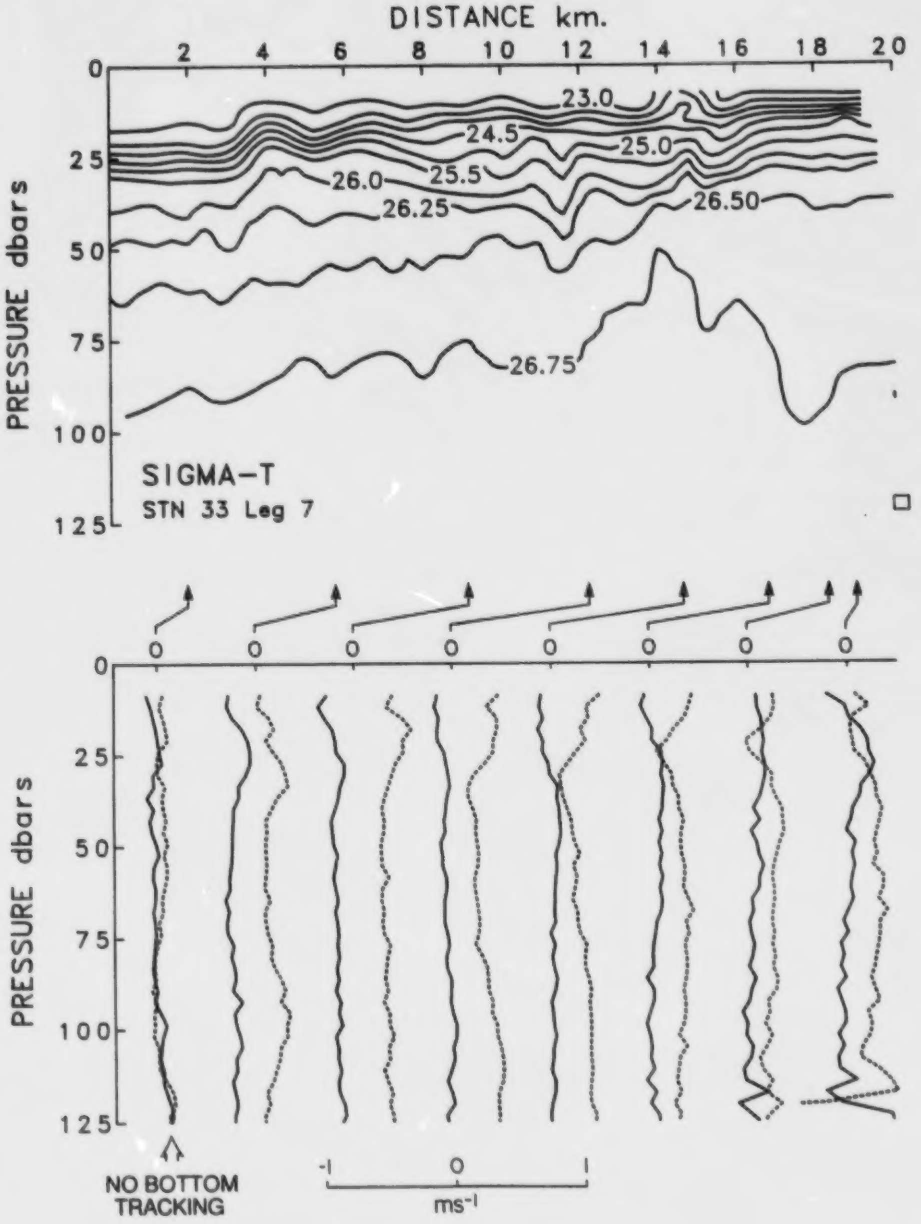

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
20
0
25
50
75
100
125
PRESSURE dbars
23.0
24.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 7
0
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
NO BOTTOM TRACKING
-1
0
1
ms-1

Fig. 45

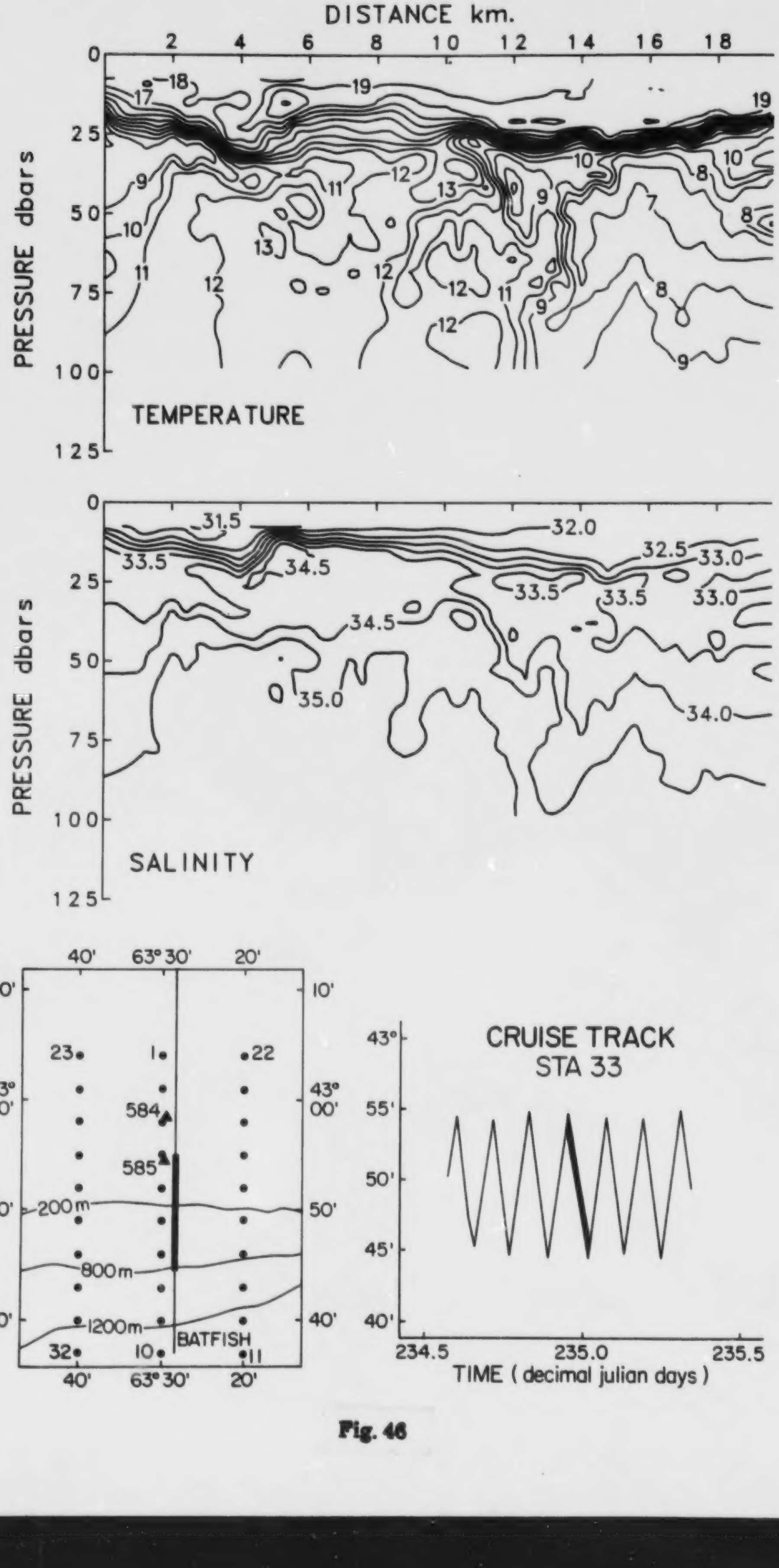

DISTANCE km.
2 4 6 8 10 12 14 16 18
PRESSURE dbars
0 25 50 75 100 125
TEMPERATURE
17
18
19
19
9
10
11
12
13
11
12
13
12
12
12
11
9
9
10
10
8
7
8
8
9
SALINITY
31.5
32.0
32.5
33.0
33.5
34.5
33.5
33.5
33.0
34.5
35.0
34.0
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 46

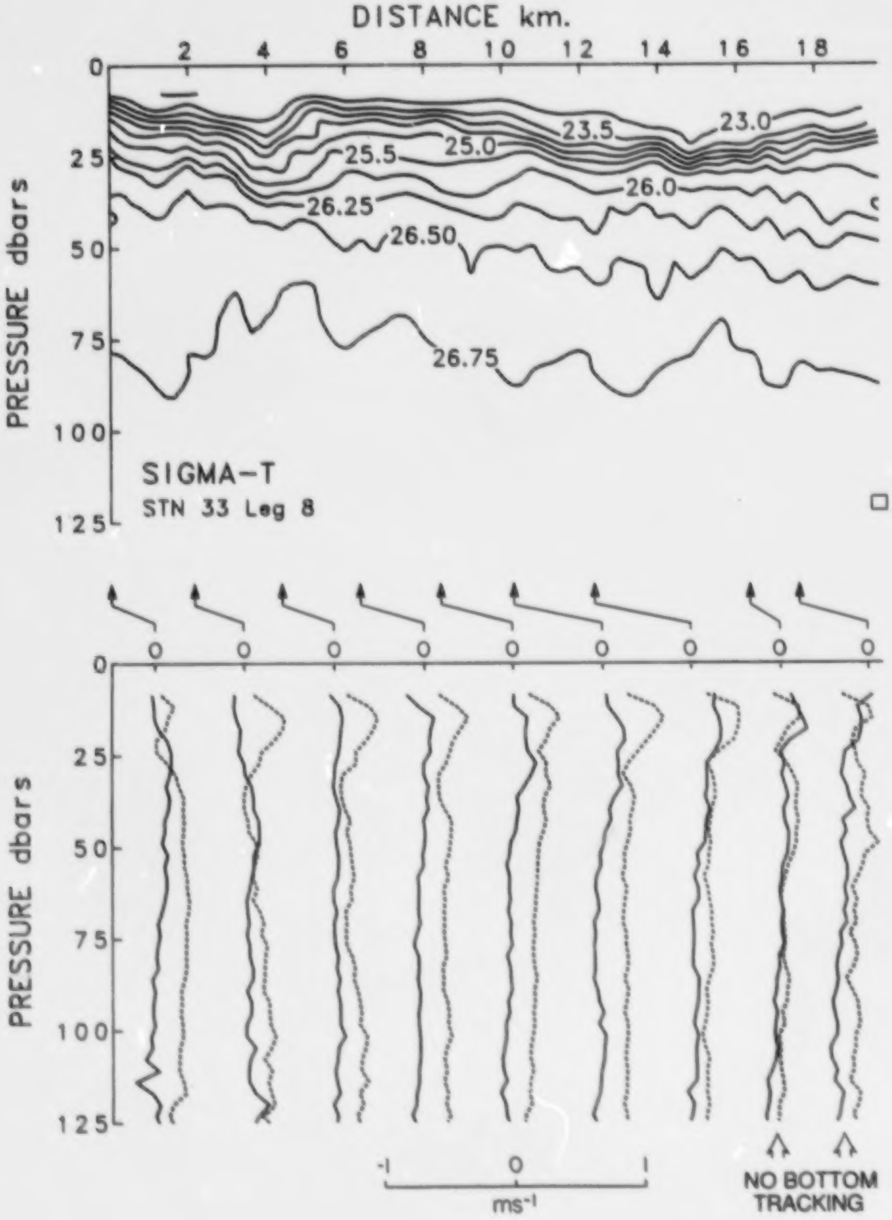

DISTANCE km.
2 4 6 8 10 12 14 16 18
0 25 50 75 100 125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 8
0 25 50 75 100 125
PRESSURE dbars
-1 0 1
ms-1
NO BOTTOM TRACKING

Fig. 47

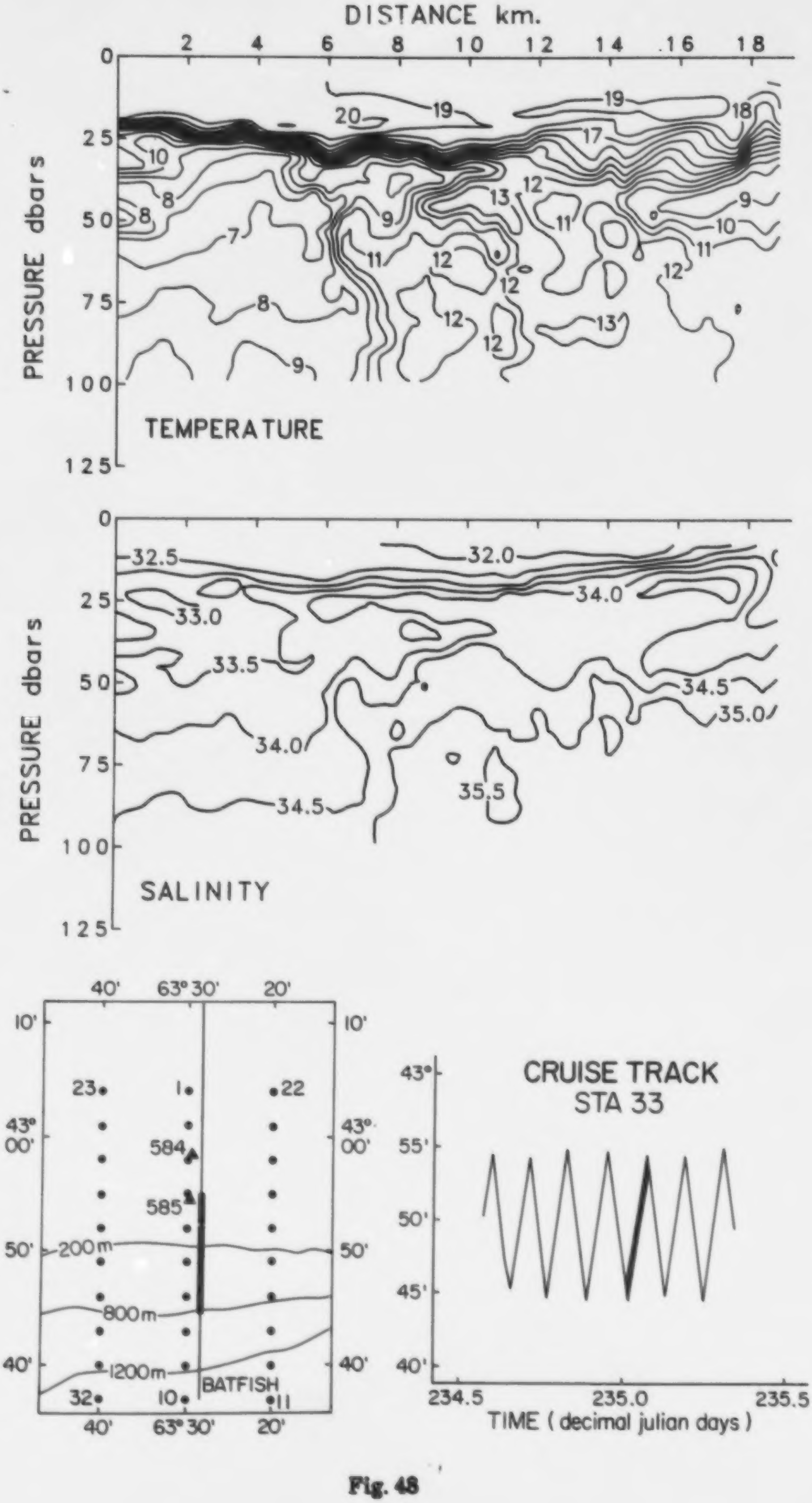

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
25
50
75
100
125
20
19
18
17
10
8
7
9
11
12
13
TEMPERATURE
32.5
32.0
34.0
33.0
33.5
34.5
35.0
35.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
45'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 48

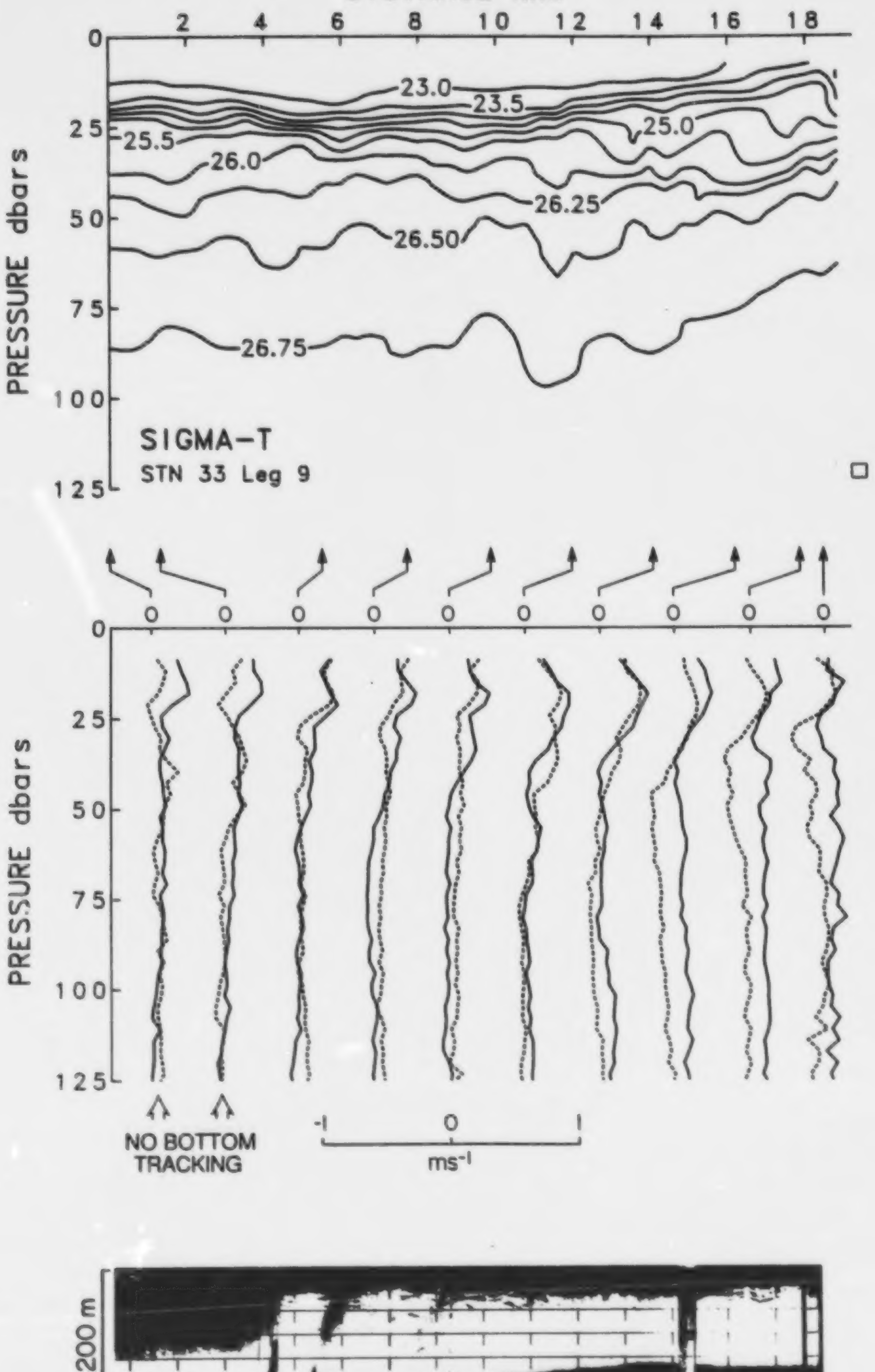

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 9
0
0
0
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
NO BOTTOM
TRACKING
-1
0
1
ms⁻¹
200 m

Fig. 49

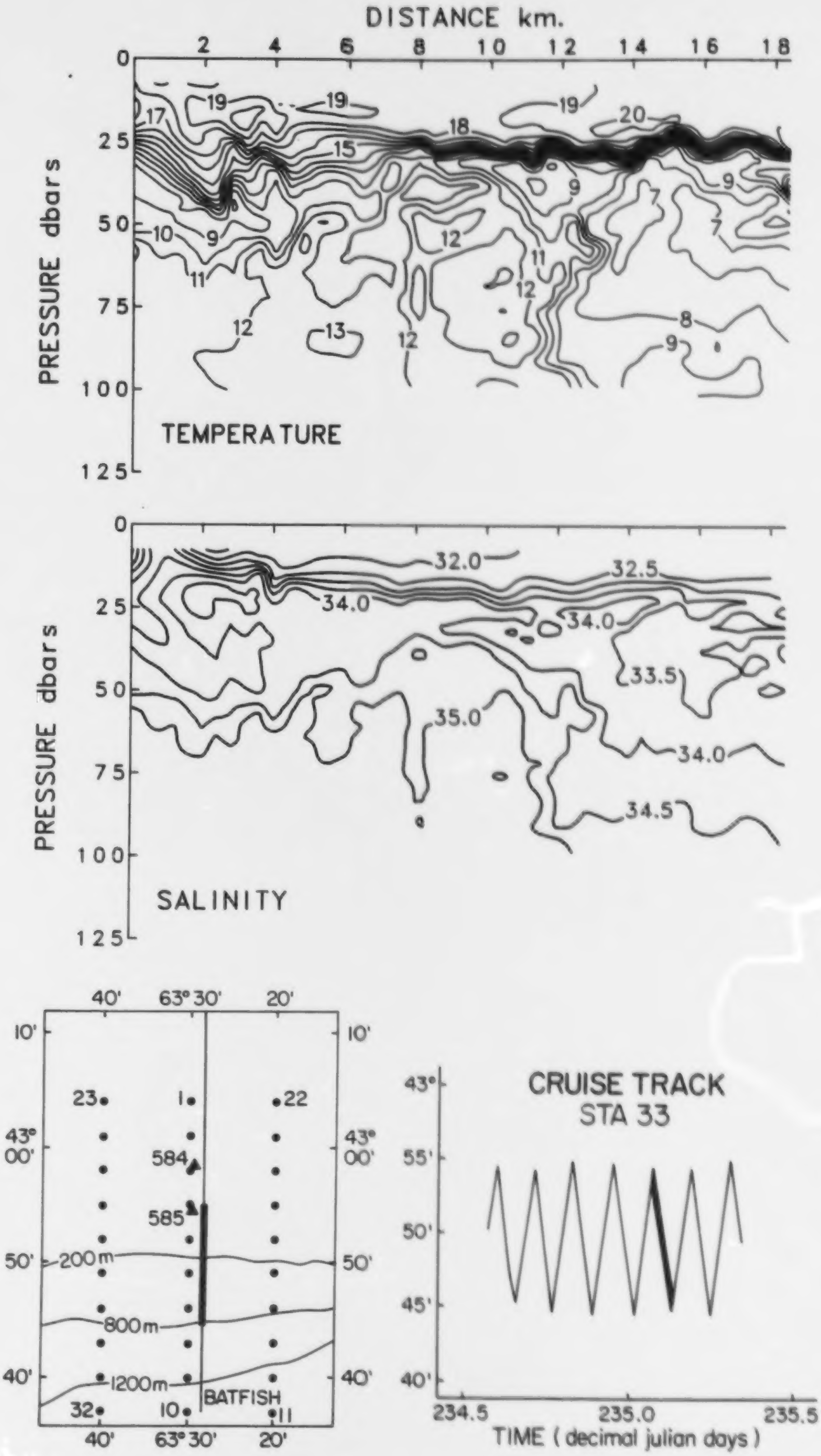

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
25
50
75
100
125
17
19
19
19
20
18
15
9
9
7
7
10
9
12
11
11
12
12
13
12
8
9
TEMPERATURE
32.0
32.5
34.0
34.0
33.5
35.0
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
-200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 50

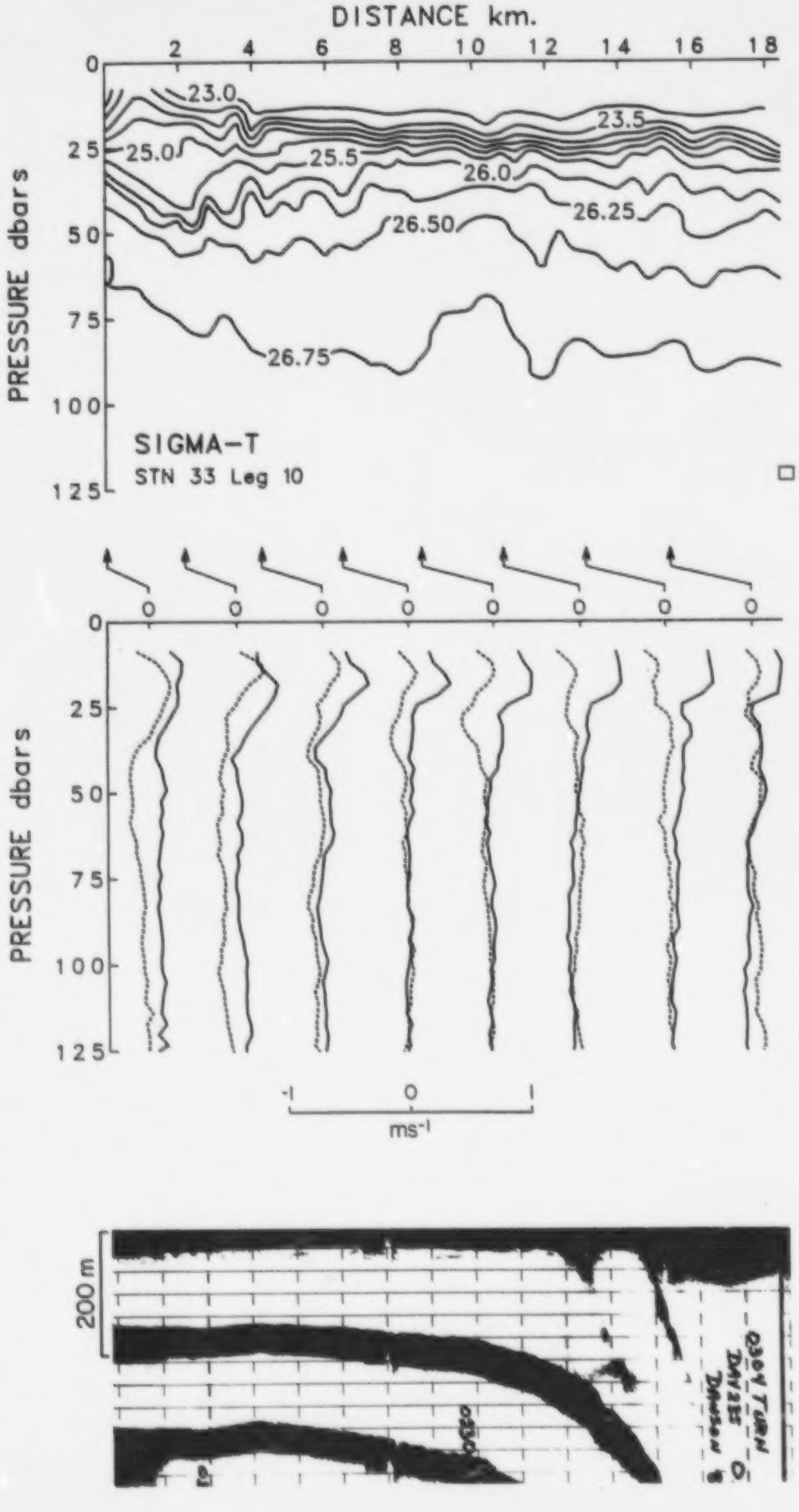

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 10
0
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹
200 m
0307 TURN
DAY 215
Dawson
0
0300

Fig. 51

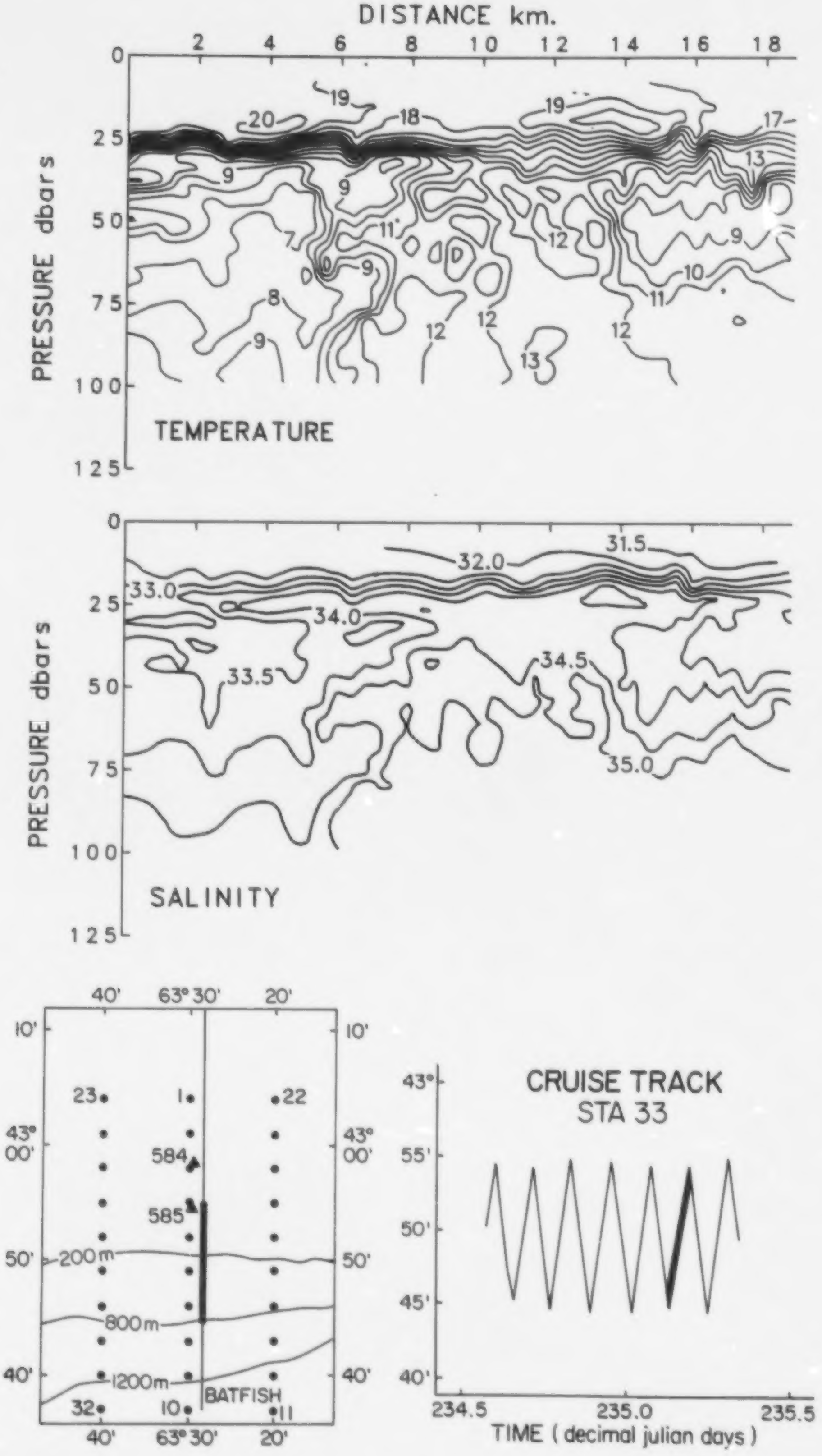

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
19
20
18
19
17
13
9
9
11
12
9
7
9
10
8
11
12
12
12
12
9
13
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
31.5
33.0
34.0
33.5
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 52

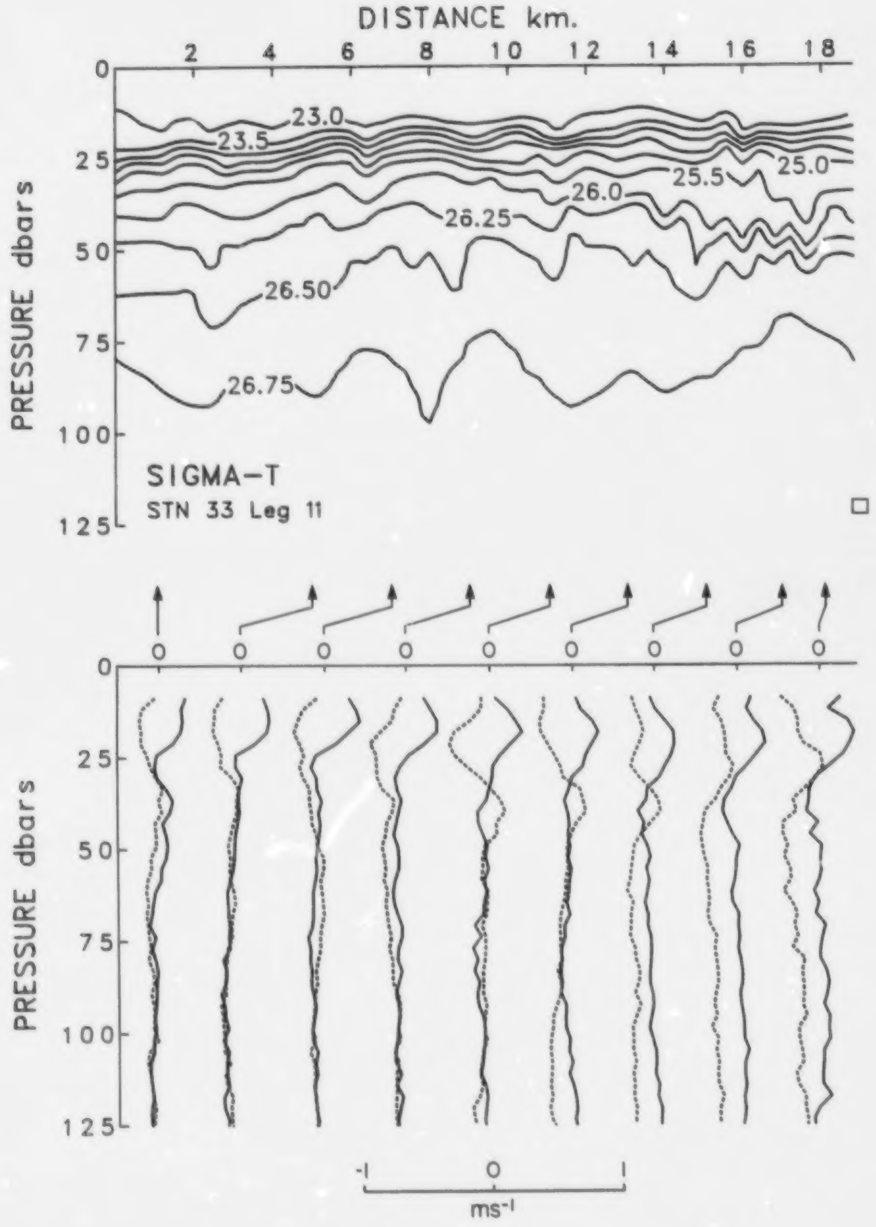

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 11
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 53

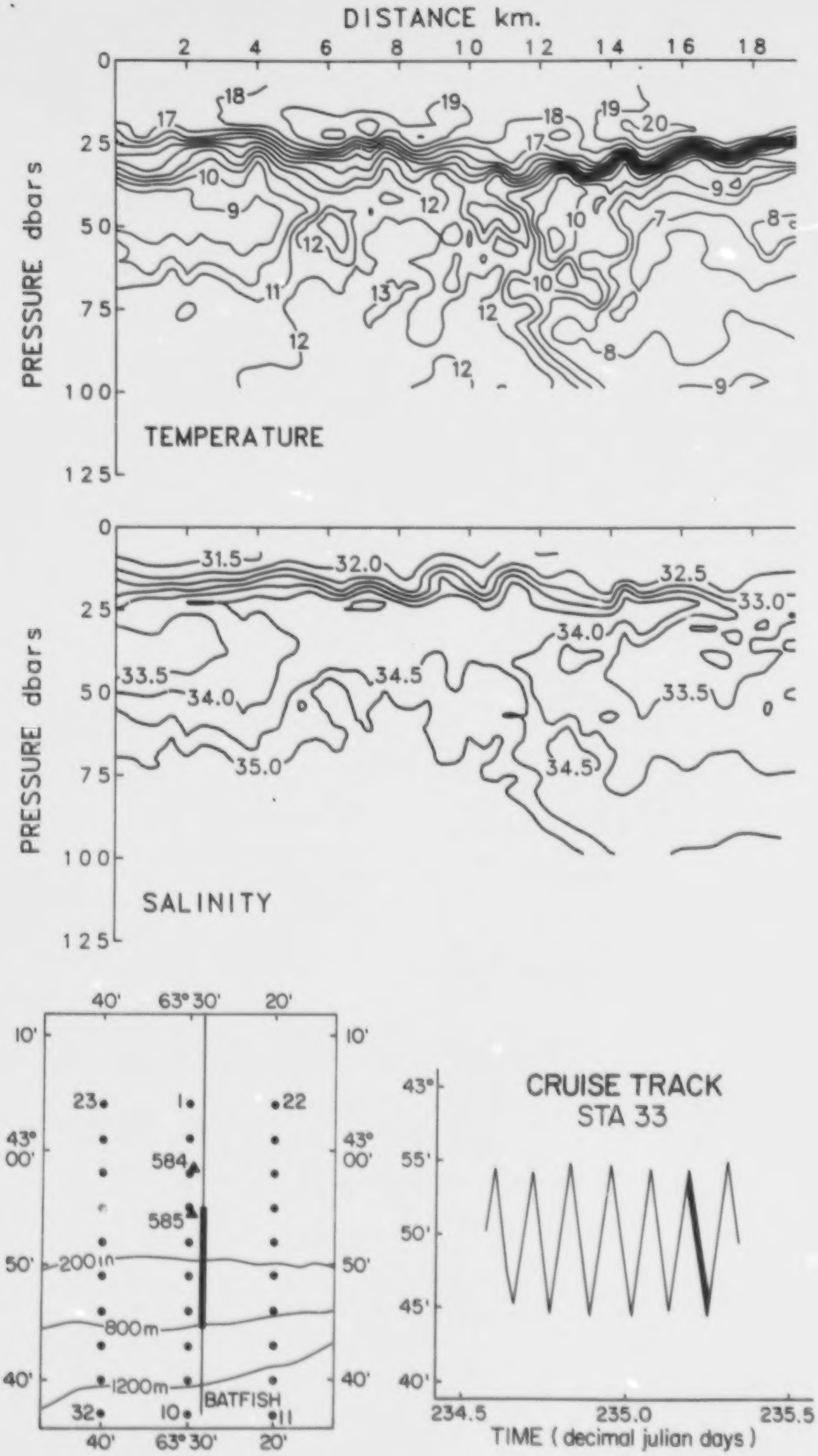

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
17
18
19
18
17
19
20
10
9
12
12
10
7
8
9
12
11
13
10
12
12
8
12
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
34.0
33.5
34.0
34.5
33.5
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200 m
800 m
1200 m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 54

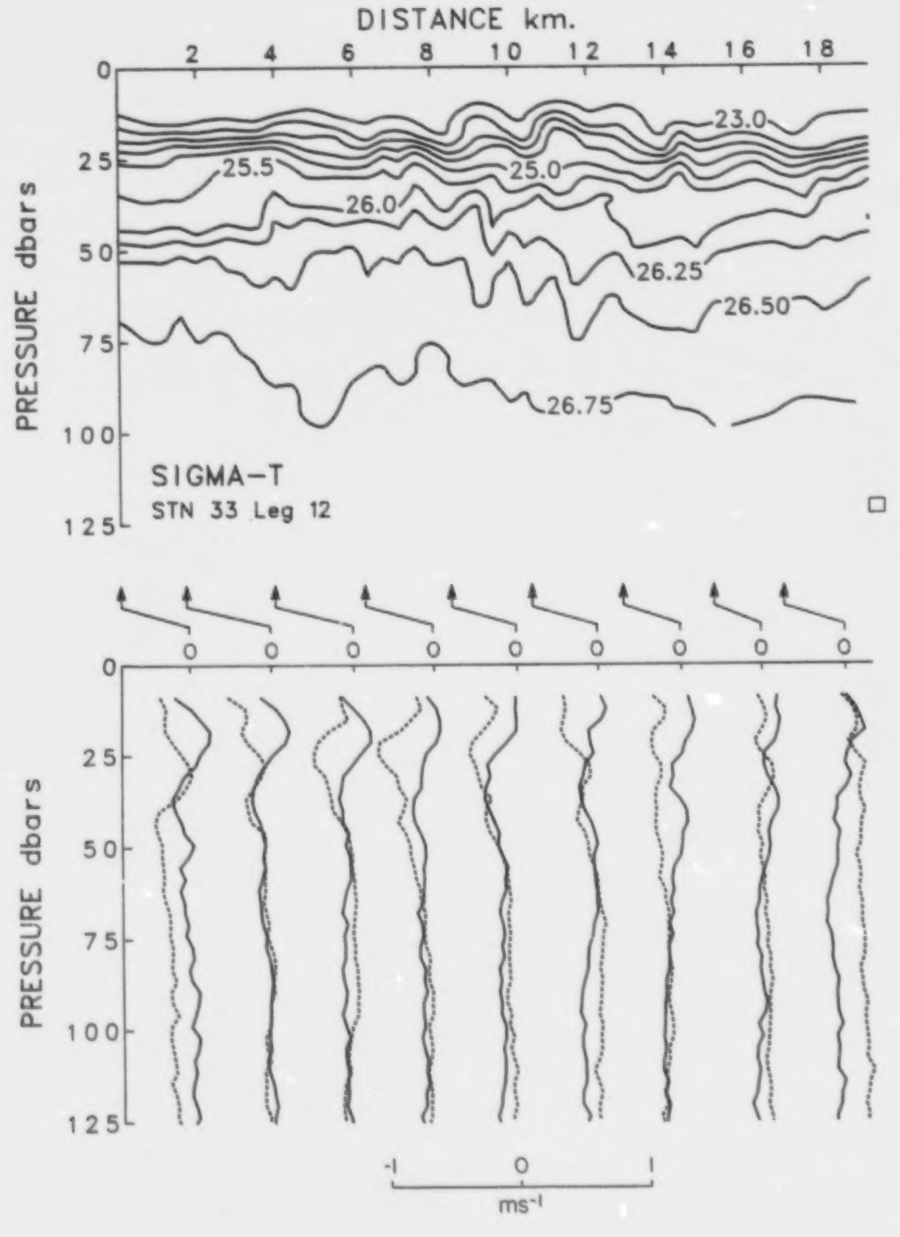

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
25.0
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 12
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 55

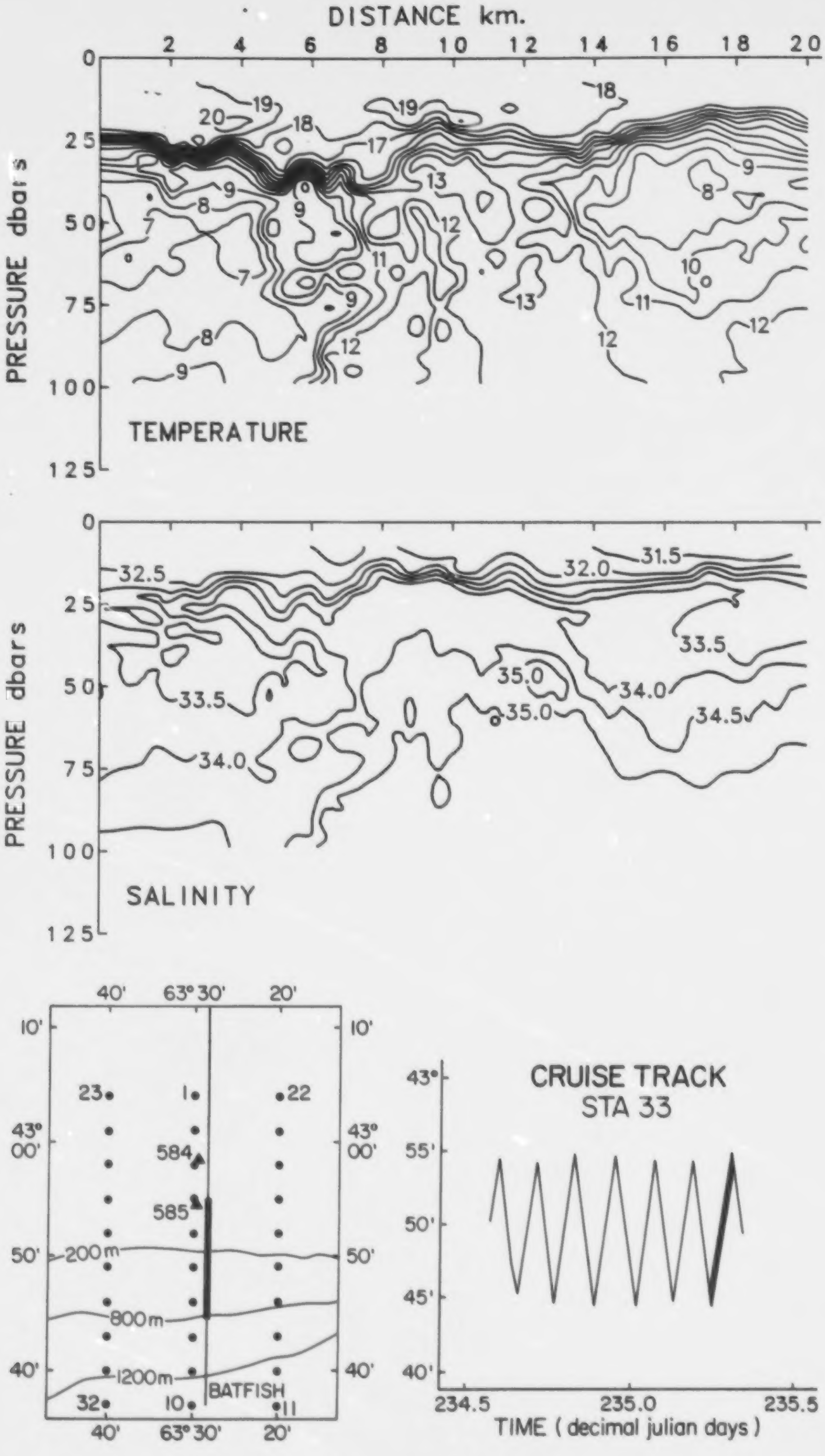

DISTANCE km.
2
4
6
8
10
12
14
16
18
20
PRESSURE dbars
0
25
50
75
100
125
TEMPERATURE
20
19
18
17
13
12
11
10
9
8
7
SALINITY
32.5
32.0
31.5
33.5
34.0
34.5
35.0
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
32
10
11
200m
800m
1200m
BATFISH
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 56

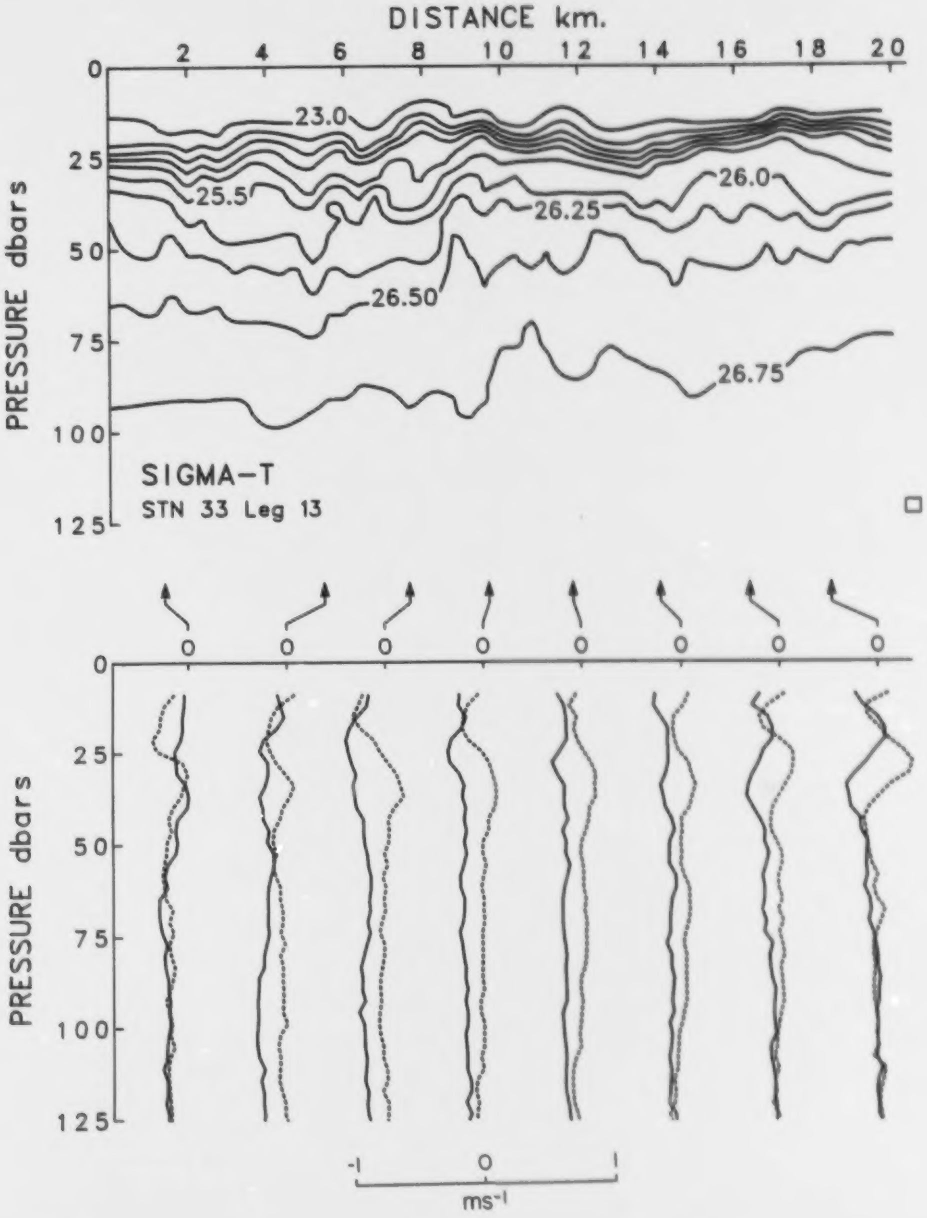

DISTANCE km.
2
4
6
8
10
12
14
16
18
20
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 13
0
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 57

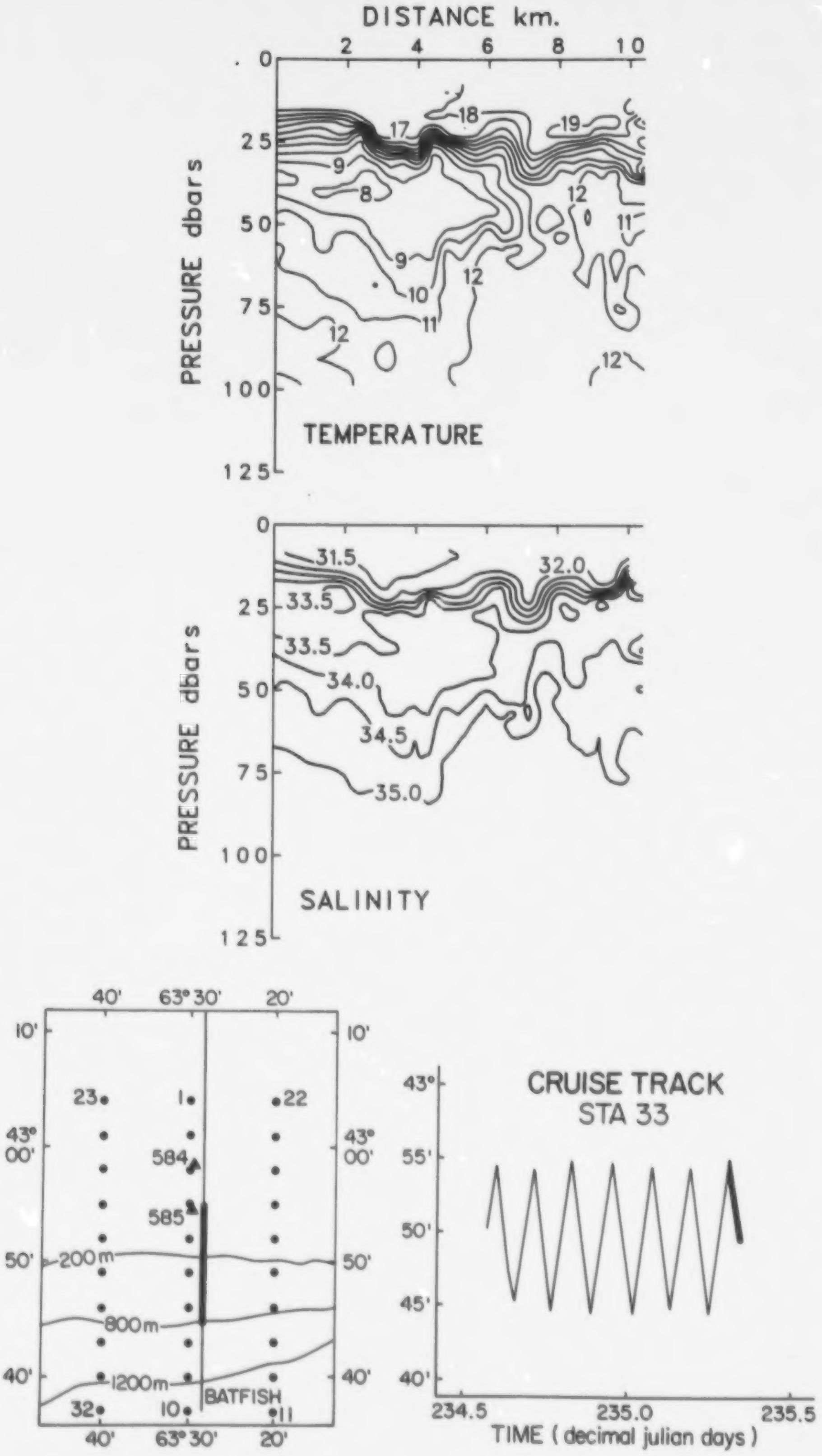

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
17
18
19
9
8
12
11
9
10
12
11
12
12
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
33.5
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 33
43°
55'
50'
45'
40'
234.5
235.0
235.5
TIME (decimal julian days)

Fig. 58

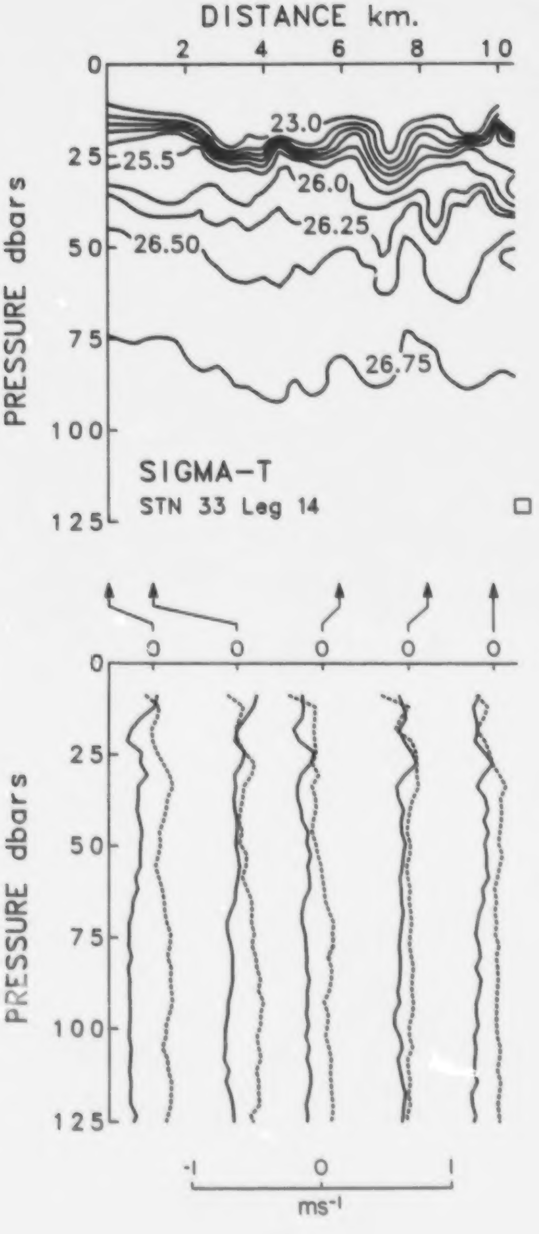

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 33 Leg 14
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 59

Figures 60-91

BATFISH station 34; 16 sections of Temperature, Salinity and Sigma-t vs. pressure, location map and latitude vs. time plot.

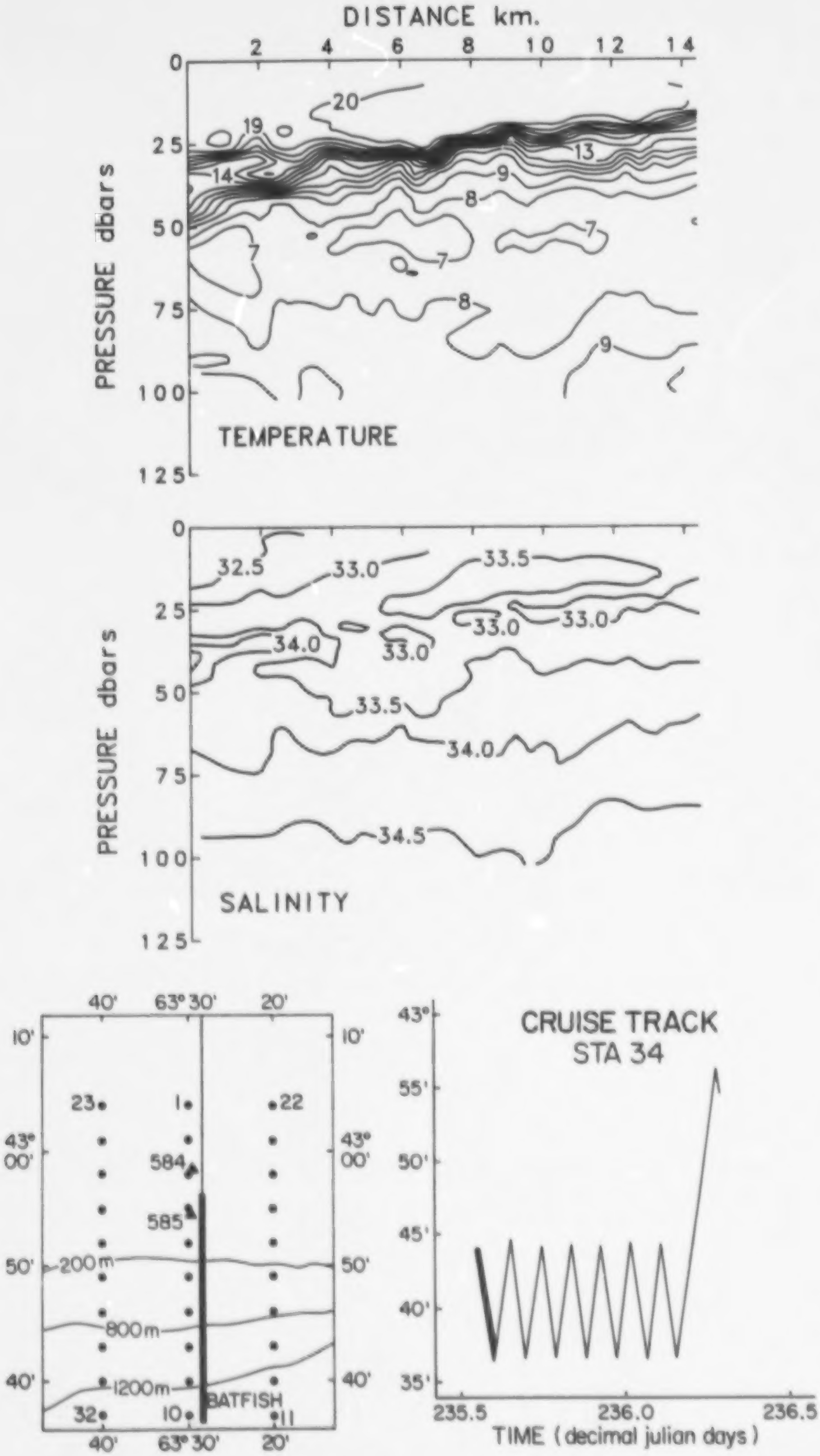

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
19
13
14
9
8
7
7
7
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.5
33.0
33.5
33.0
33.0
34.0
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
10'
23
1
22
43° 00'
43° 00'
584
585
50'
50'
200m
800m
40'
40'
1200m
BATFISH
32
10
11
40'
63° 30'
20'
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 60

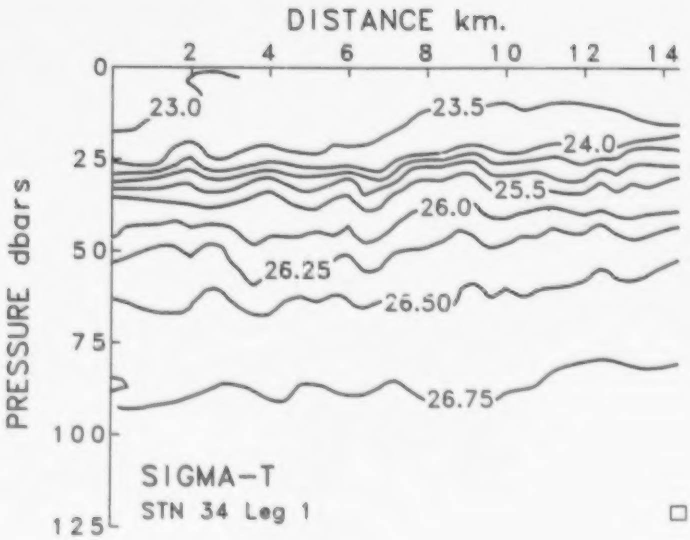

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 1

Fig. 61

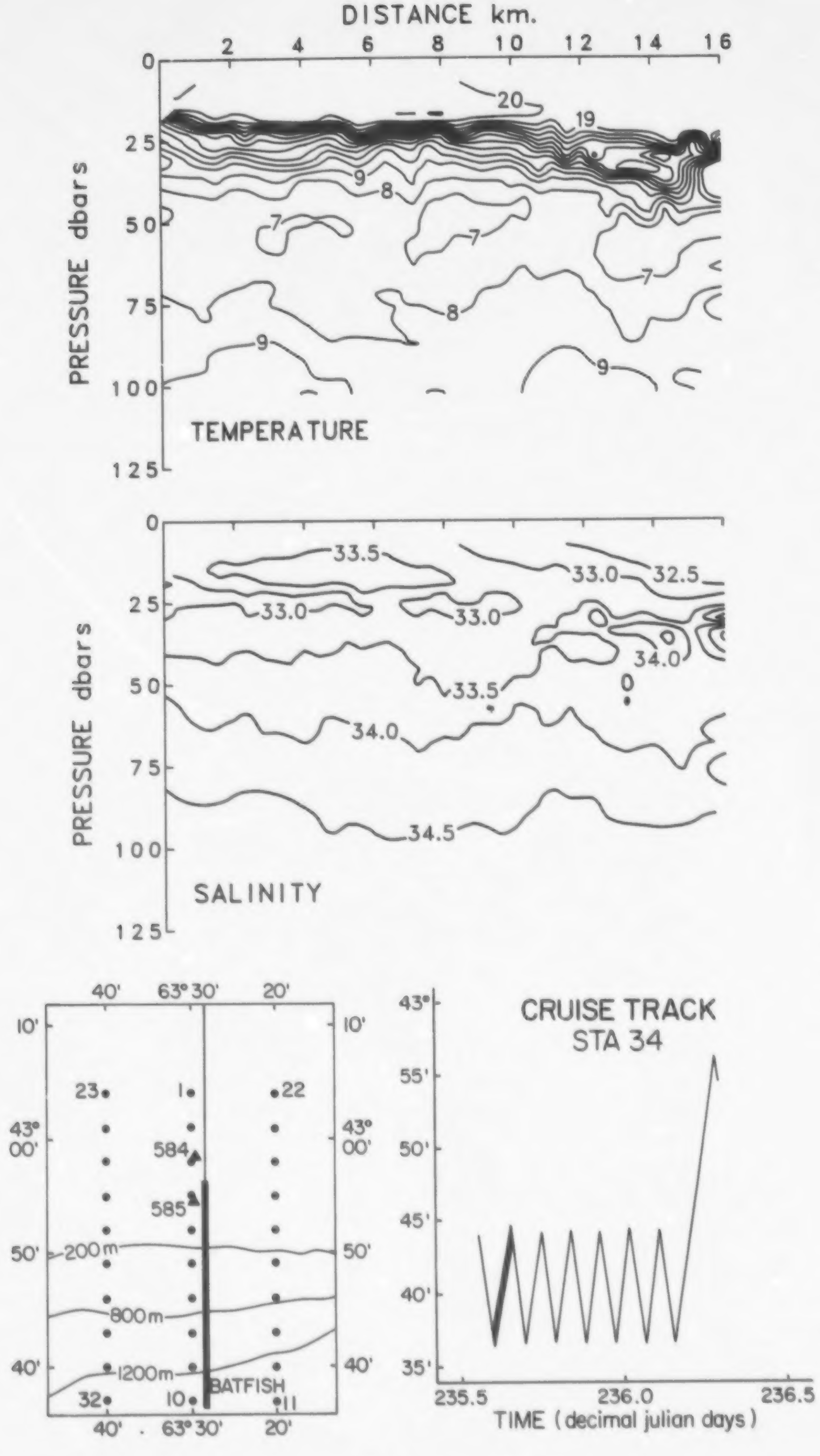

DISTANCE km.
2
4
6
8
10
12
14
16
PRESSURE dbars
0
25
50
75
100
125
20
19
9
8
7
7
7
8
9
9
TEMPERATURE
33.5
33.0
32.5
33.0
33.0
34.0
33.5
0
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 62

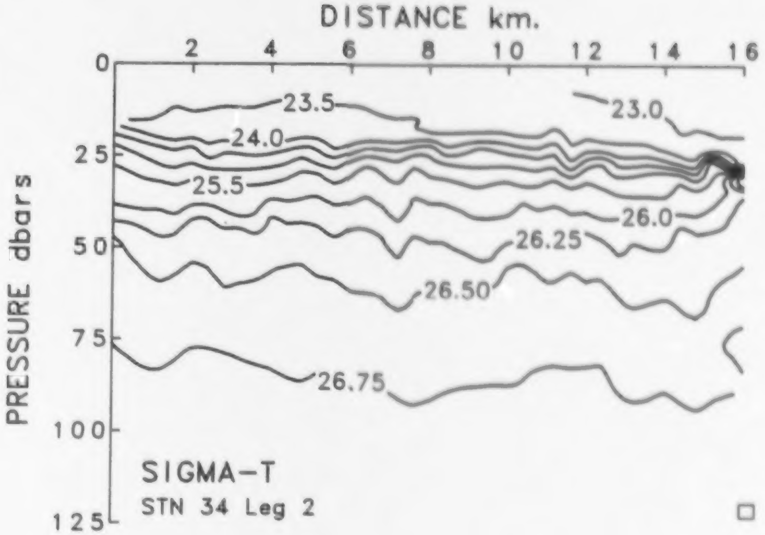

DISTANCE km.
2
4
6
8
10
12
14
16
0
25
50
75
100
125
PRESSURE dbars
23.5
23.0
24.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 2

Fig. 63

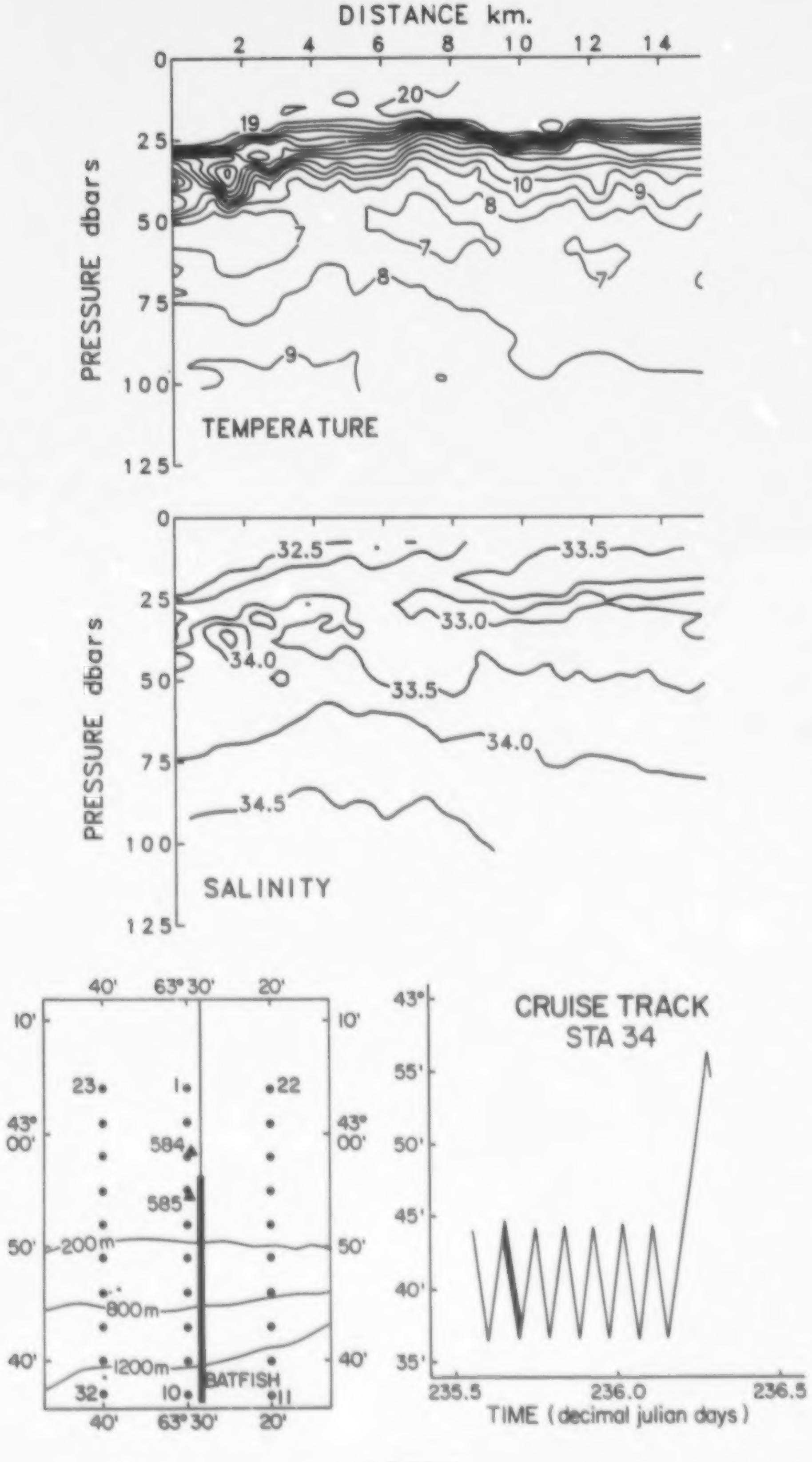

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
20
19
10
9
8
7
8
9
TEMPERATURE
32.5
33.5
33.0
34.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 64

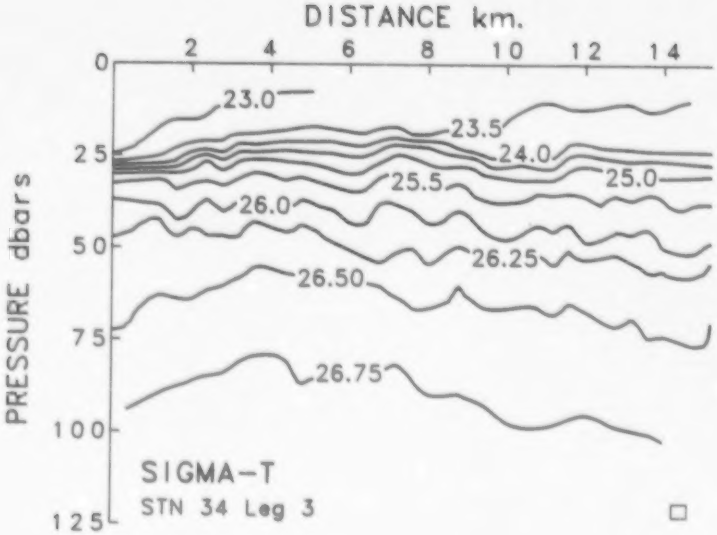

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 3

Fig. 65

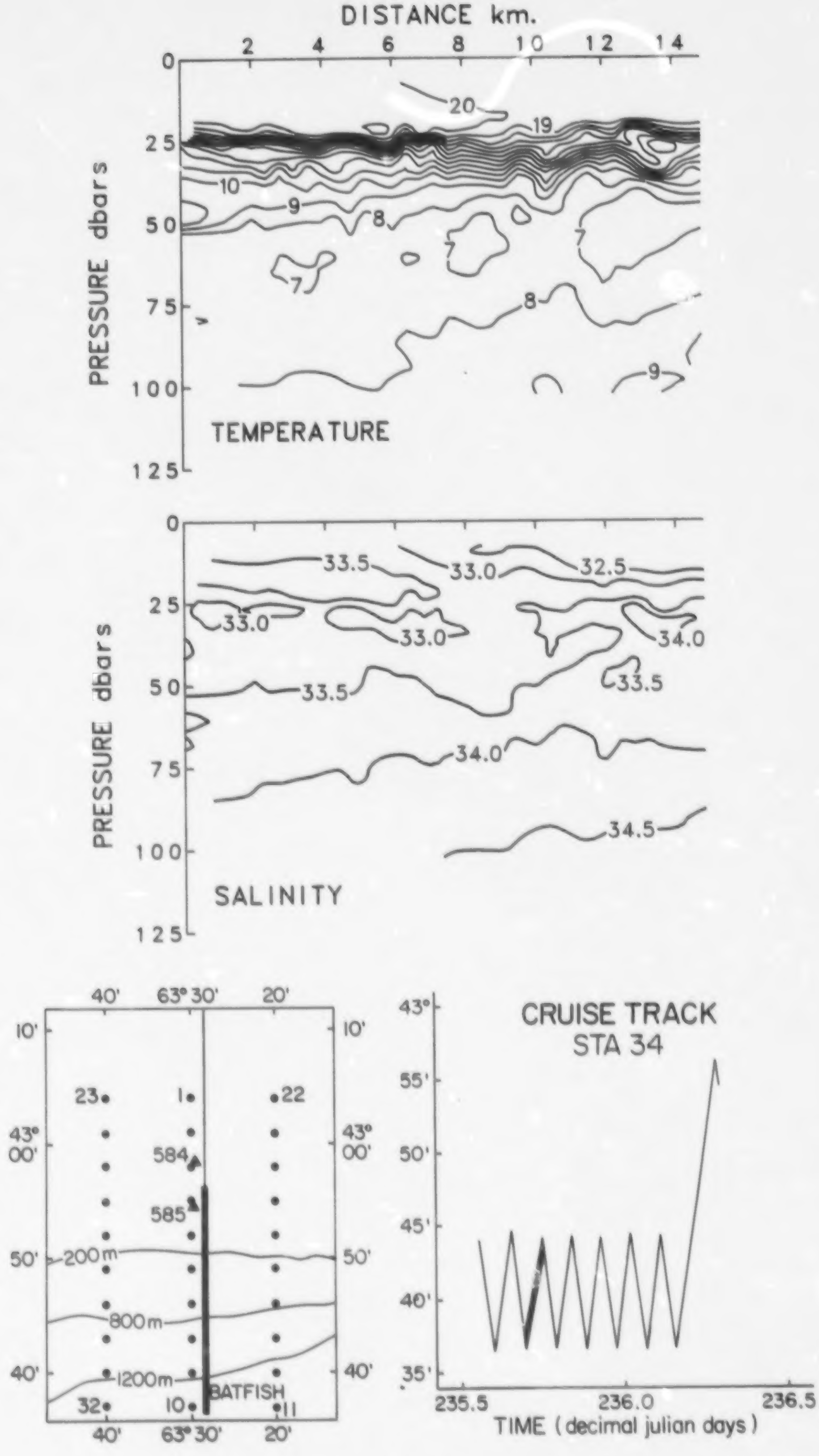

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
19
10
9
8
7
7
7
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
33.5
33.0
32.5
33.0
33.0
34.0
33.5
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 66

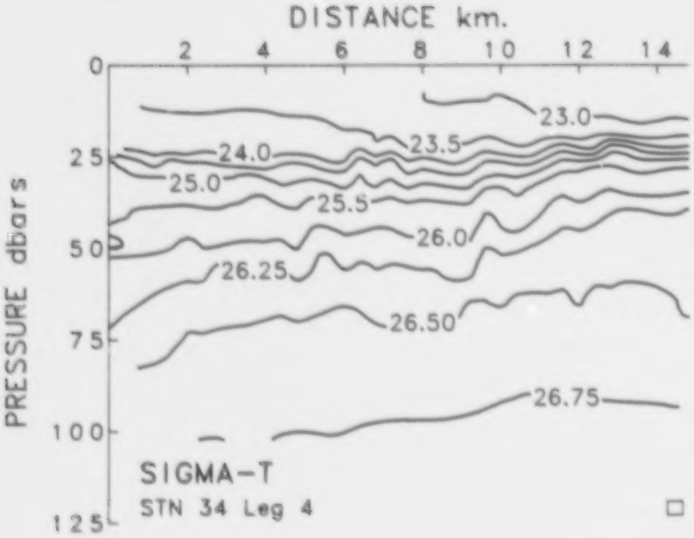

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 4

Fig. 67

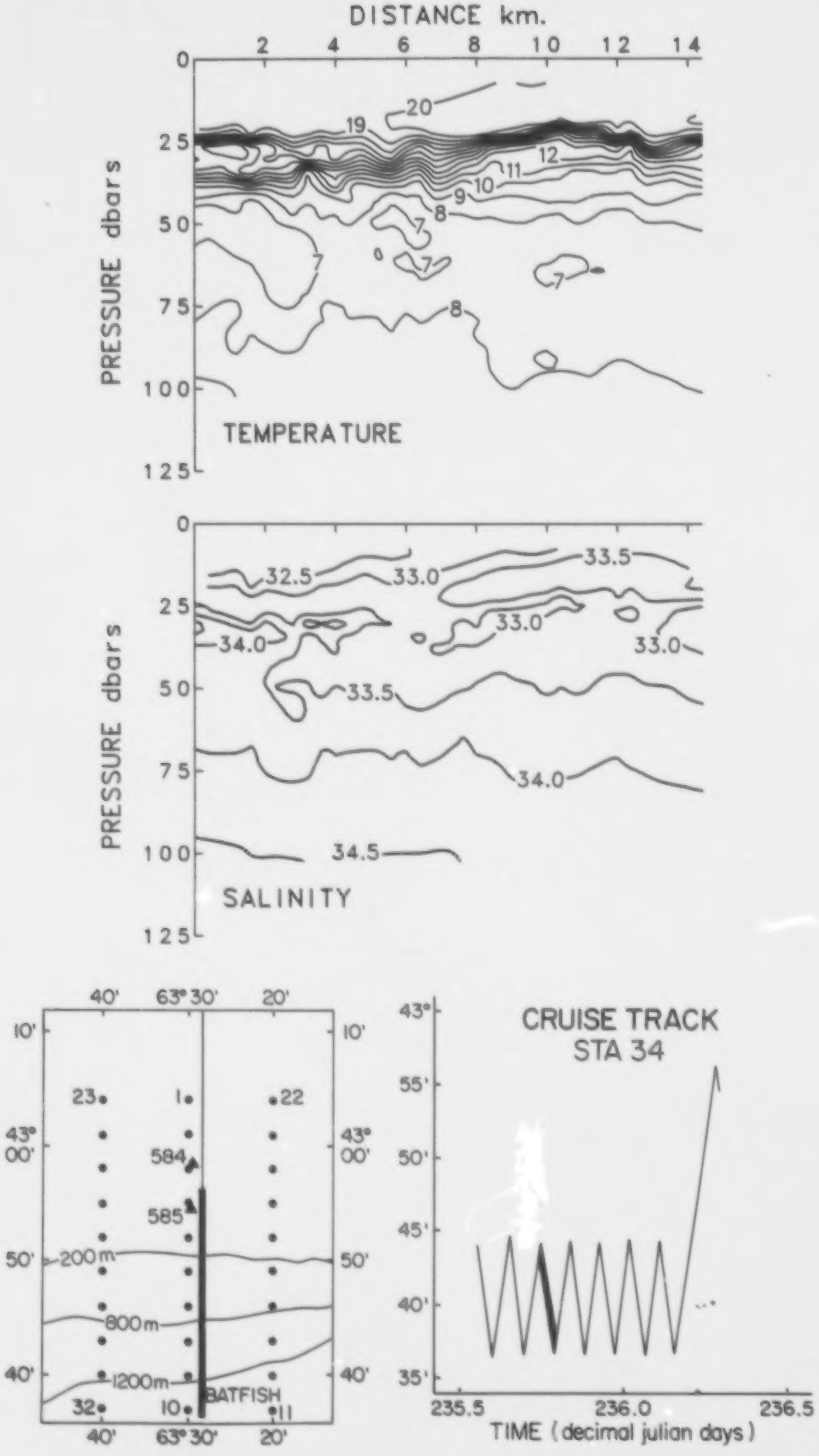

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
19
12
11
10
9
8
7
7
7
7
8
TEMPERATURE
32.5
33.0
33.5
33.0
33.0
34.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 68

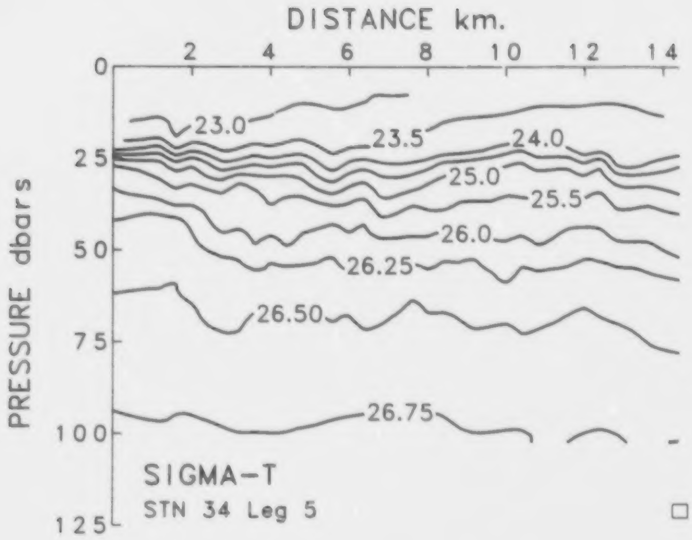

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 5

Fig. 69

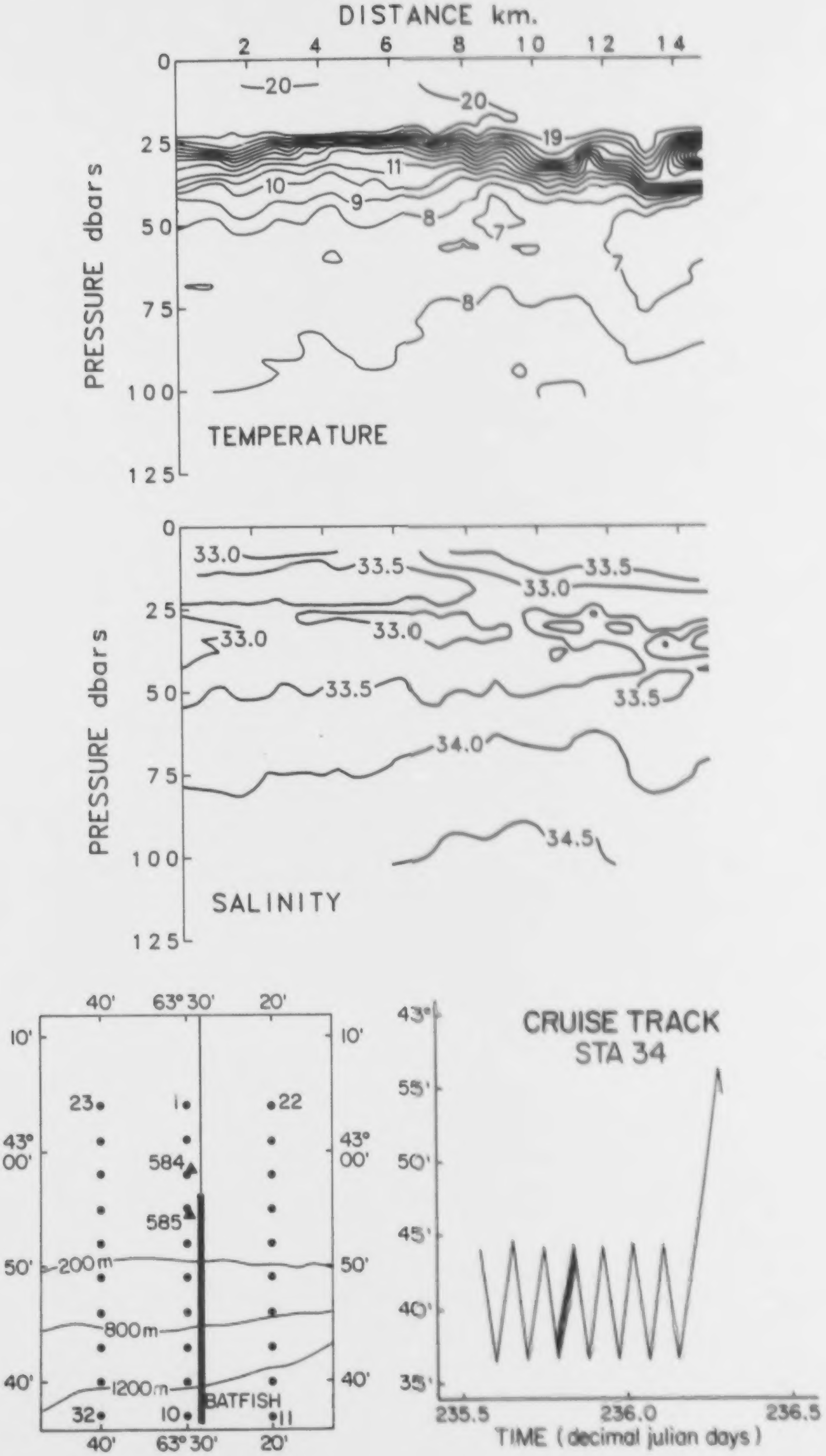

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
20
19
11
10
9
8
7
7
8
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
33.0
33.5
33.5
33.0
33.0
33.0
33.5
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
10'
43°
00'
43°
00'
50'
50'
40'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
40'
63° 30'
20'
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 70

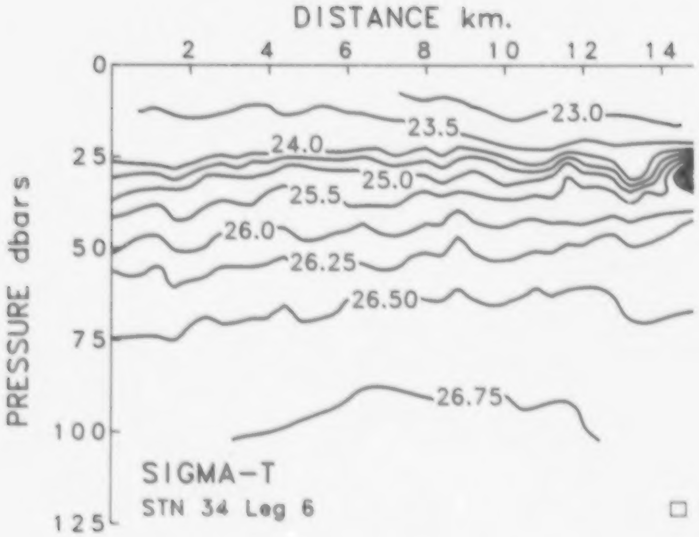

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 6

Fig. 71

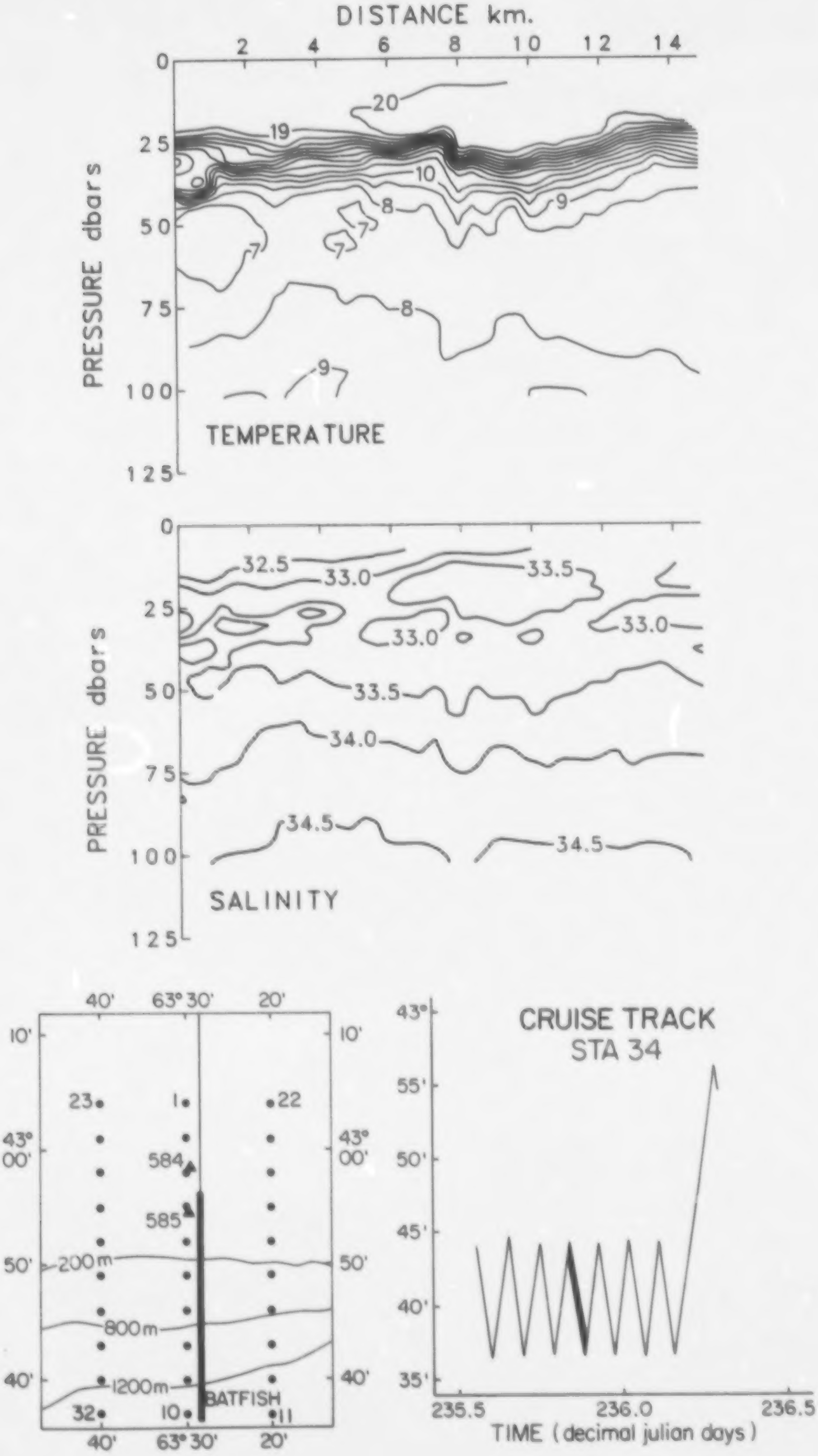

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
19
10
9
8
7
TEMPERATURE
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
45'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 72

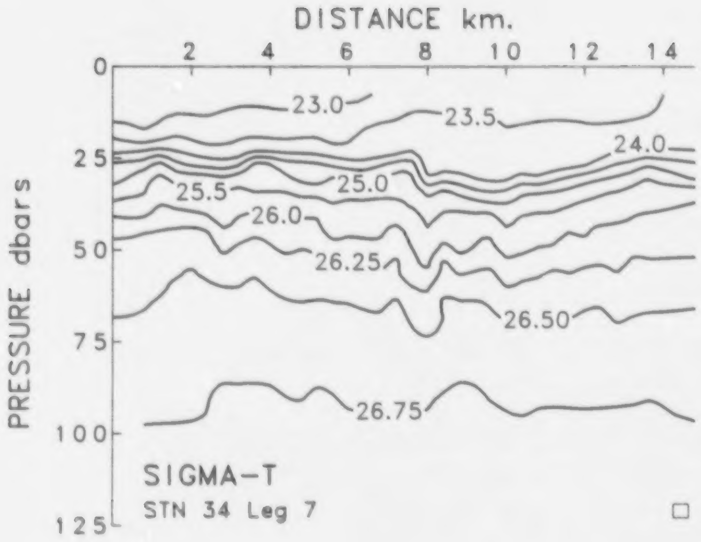

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 7

Fig. 73

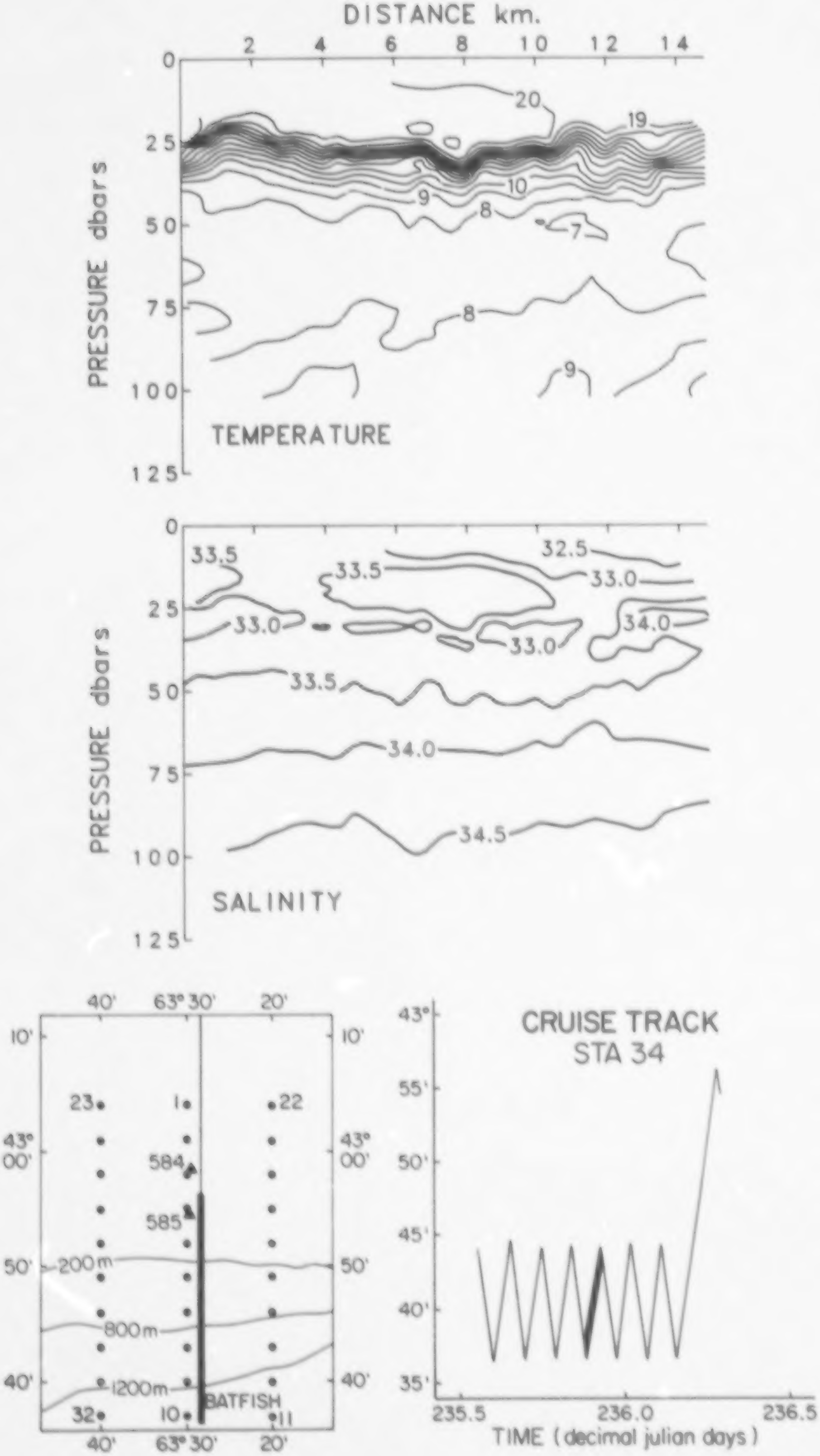

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
19
10
9
8
7
8
9
TEMPERATURE
33.5
33.5
32.5
33.0
33.0
34.0
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 74

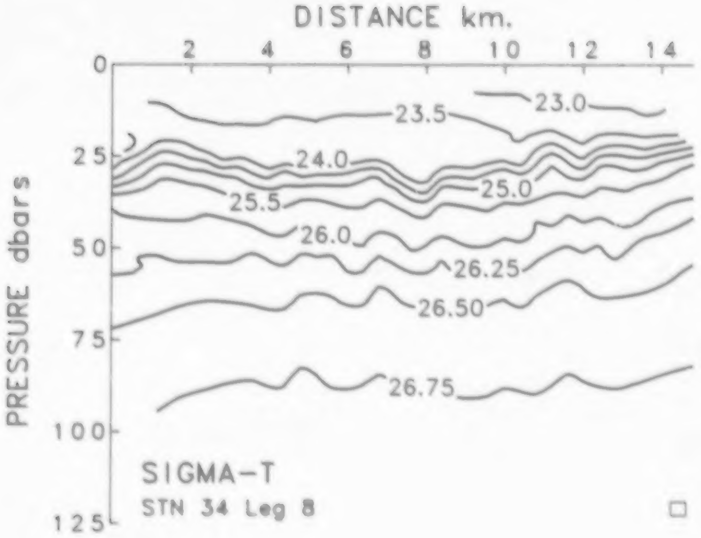

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 8

Fig. 75

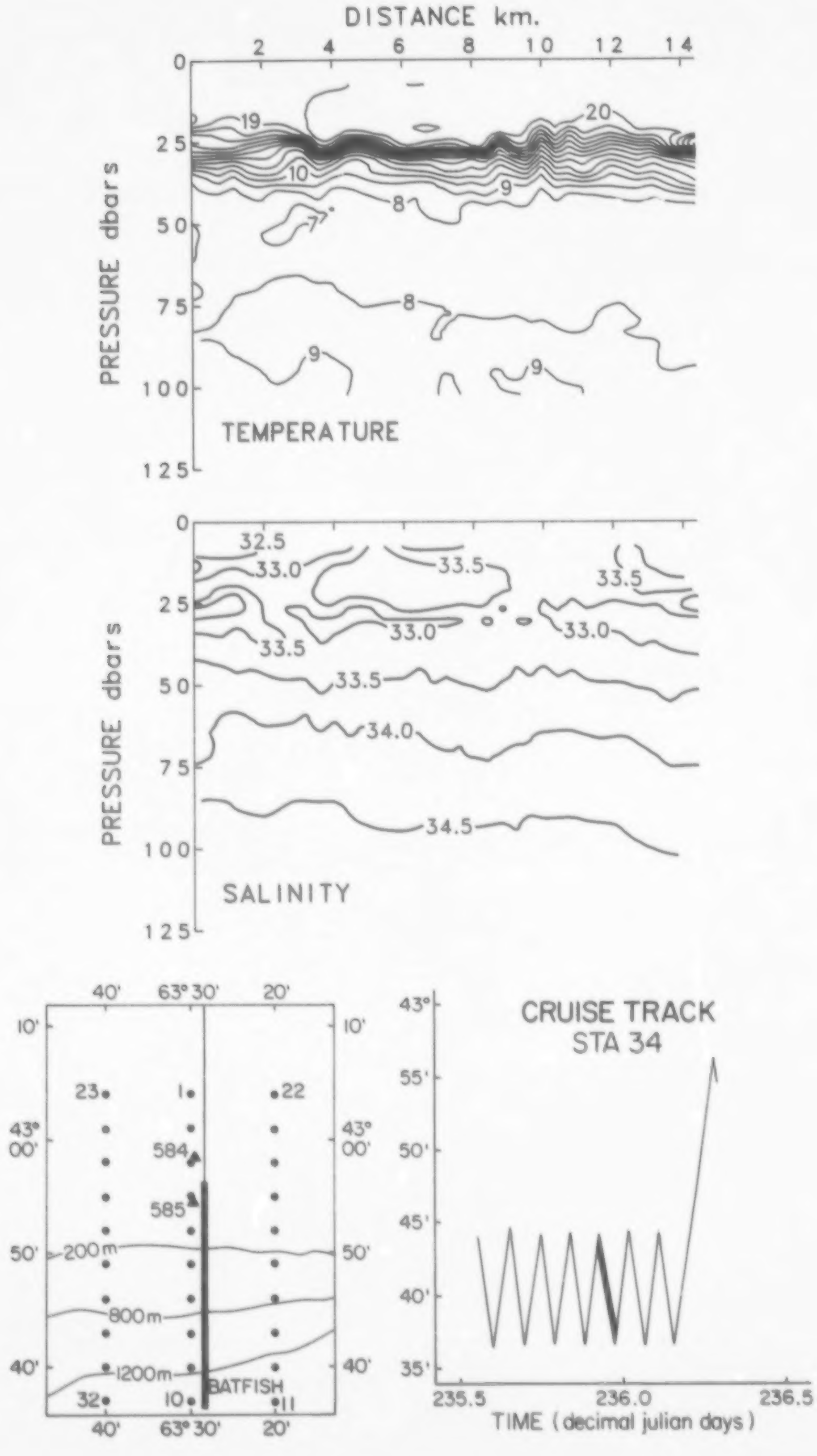

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
20
10
9
8
7
8
9
9
TEMPERATURE
32.5
33.0
33.5
33.5
33.0
33.0
33.5
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 76

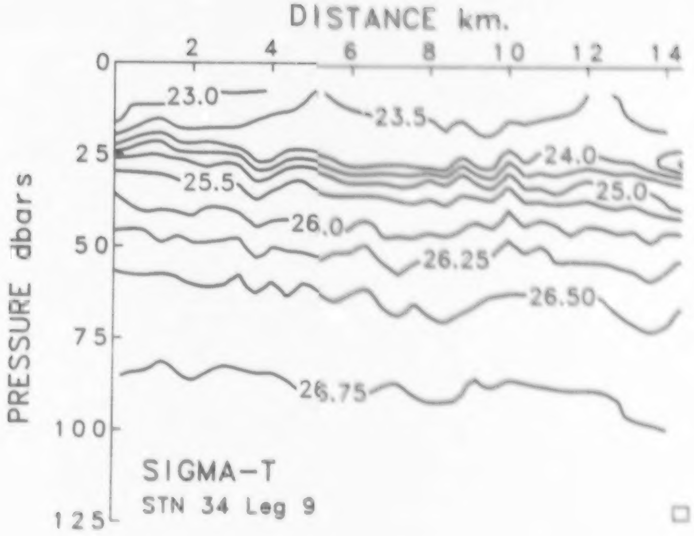

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 9

Fig. 77

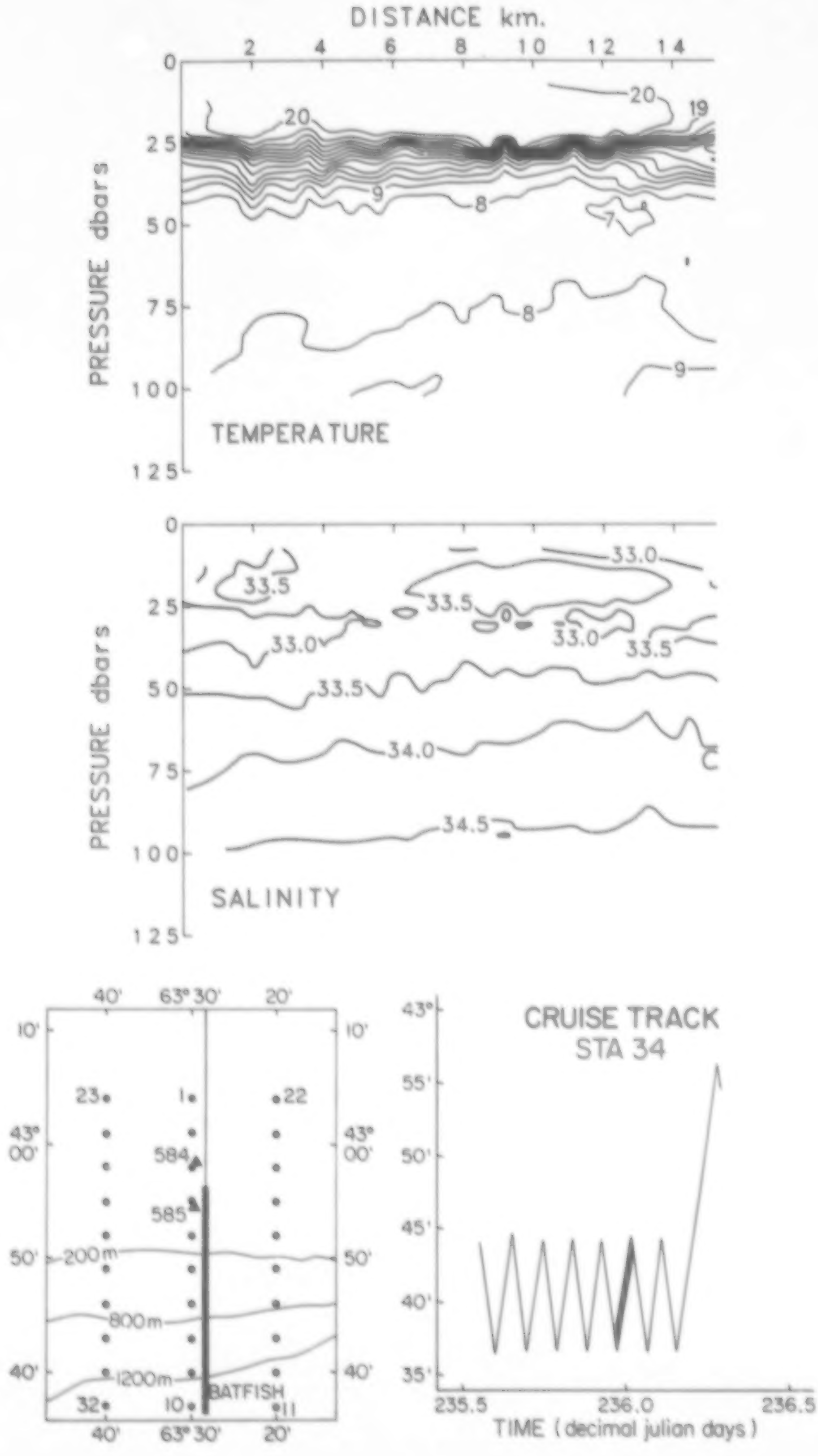

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
20
19
9
8
7
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
33.5
33.0
33.5
33.0
33.0
33.5
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 78

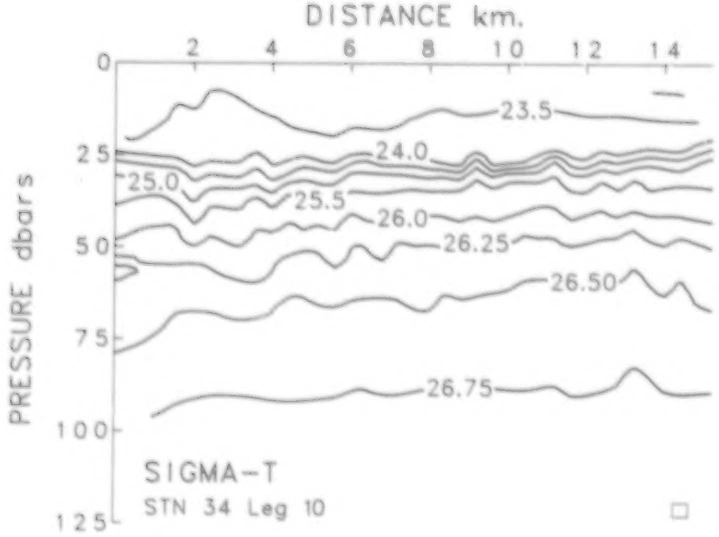

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 10

Fig. 79

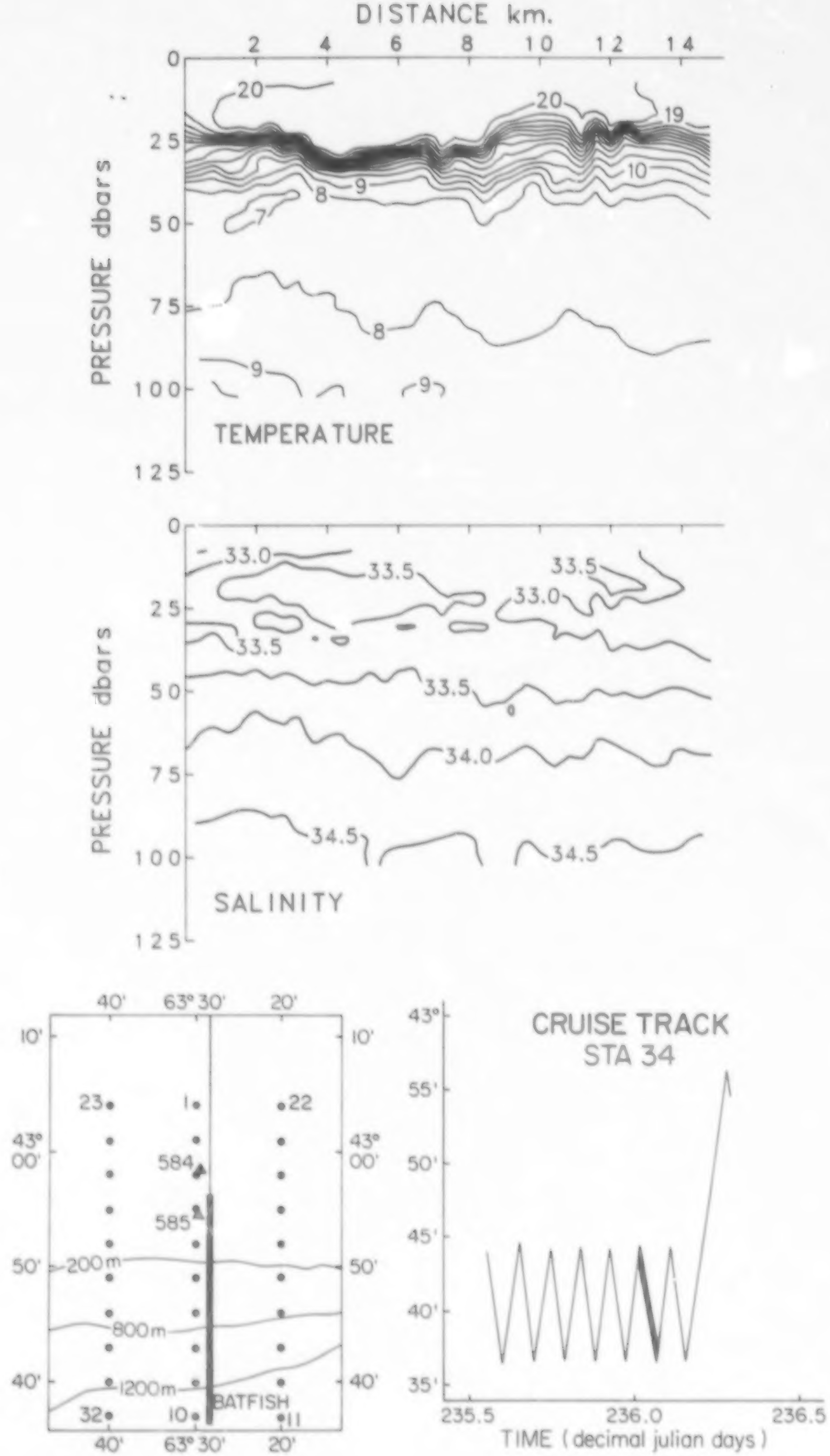

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
20
19
10
9
8
7
TEMPERATURE
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 34
43°
55'
45'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 80

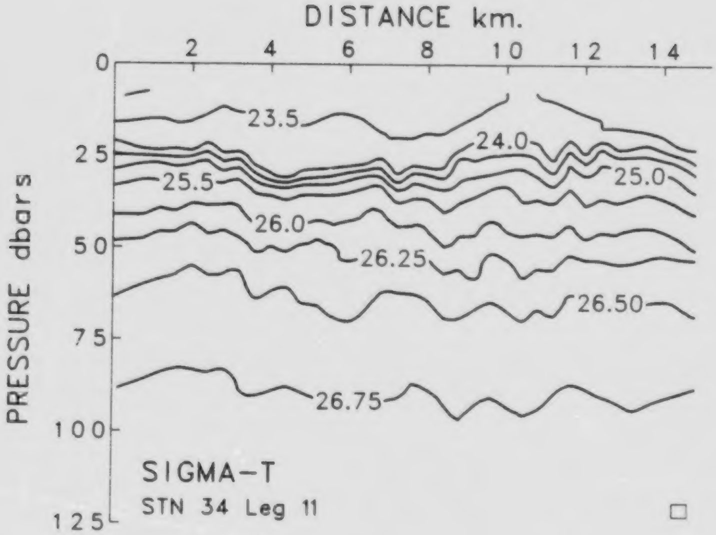

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 11

Fig. 81

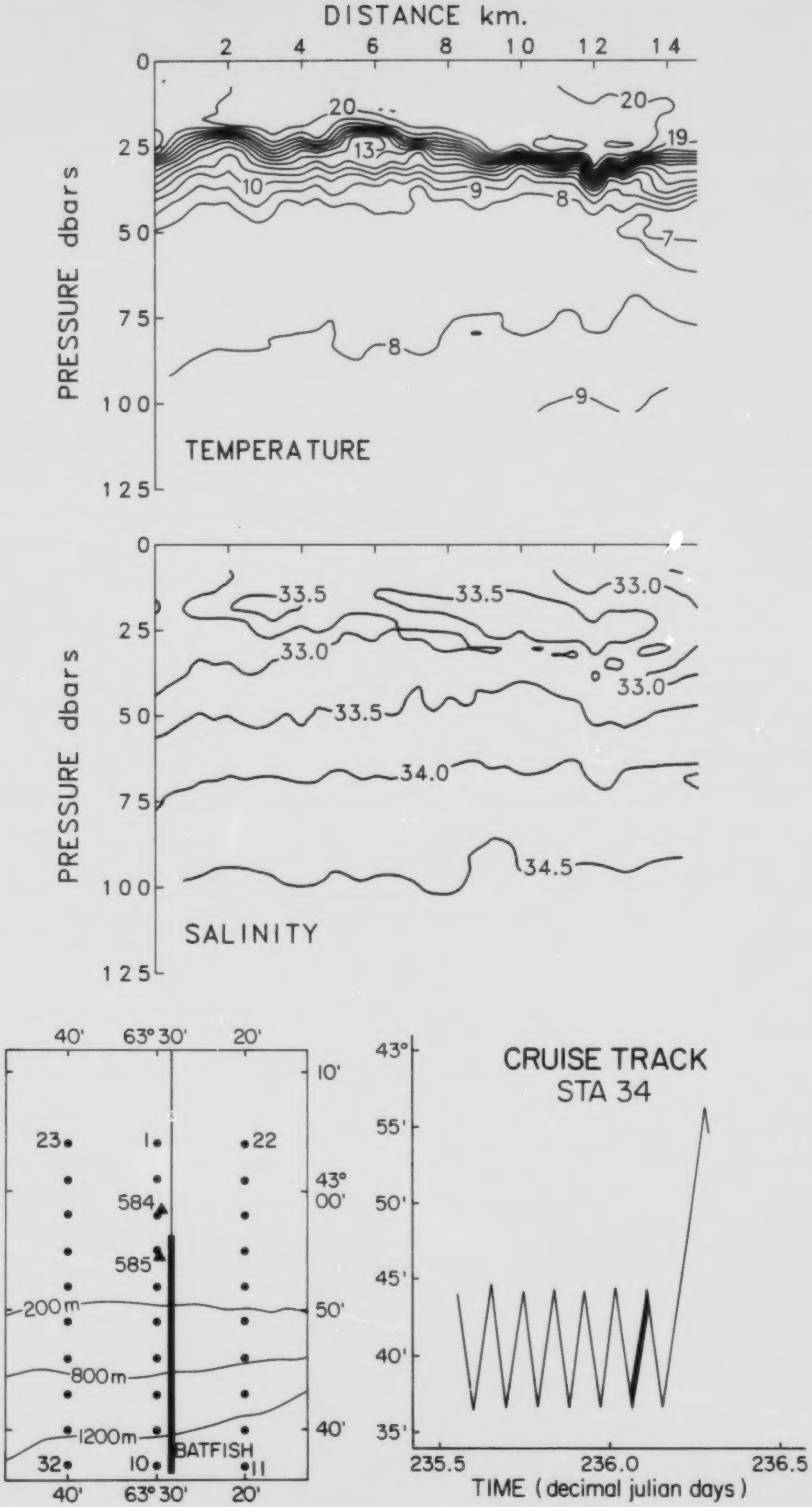

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
20
19
13
10
9
8
7
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
33.5
33.5
33.0
33.0
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
10'
23
1
22
43° 00'
43° 00'
584
585
50'
50'
200m
800m
1200m
40'
40'
32
10
11
BATFISH
40'
63° 30'
20'
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 82

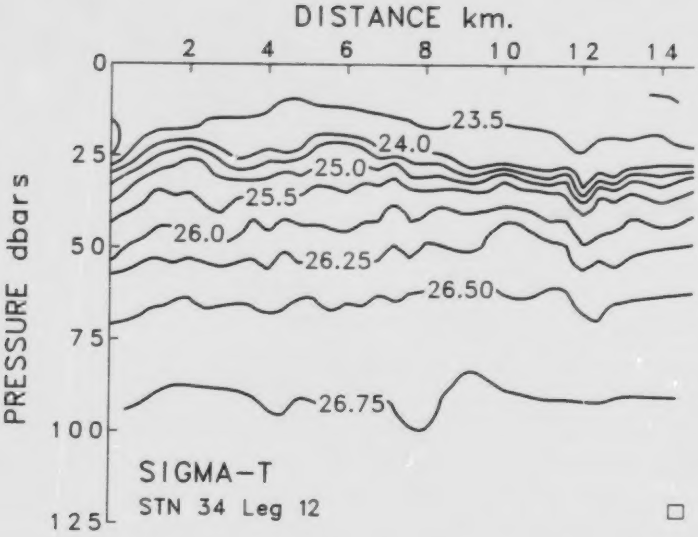

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 12

Fig. 83

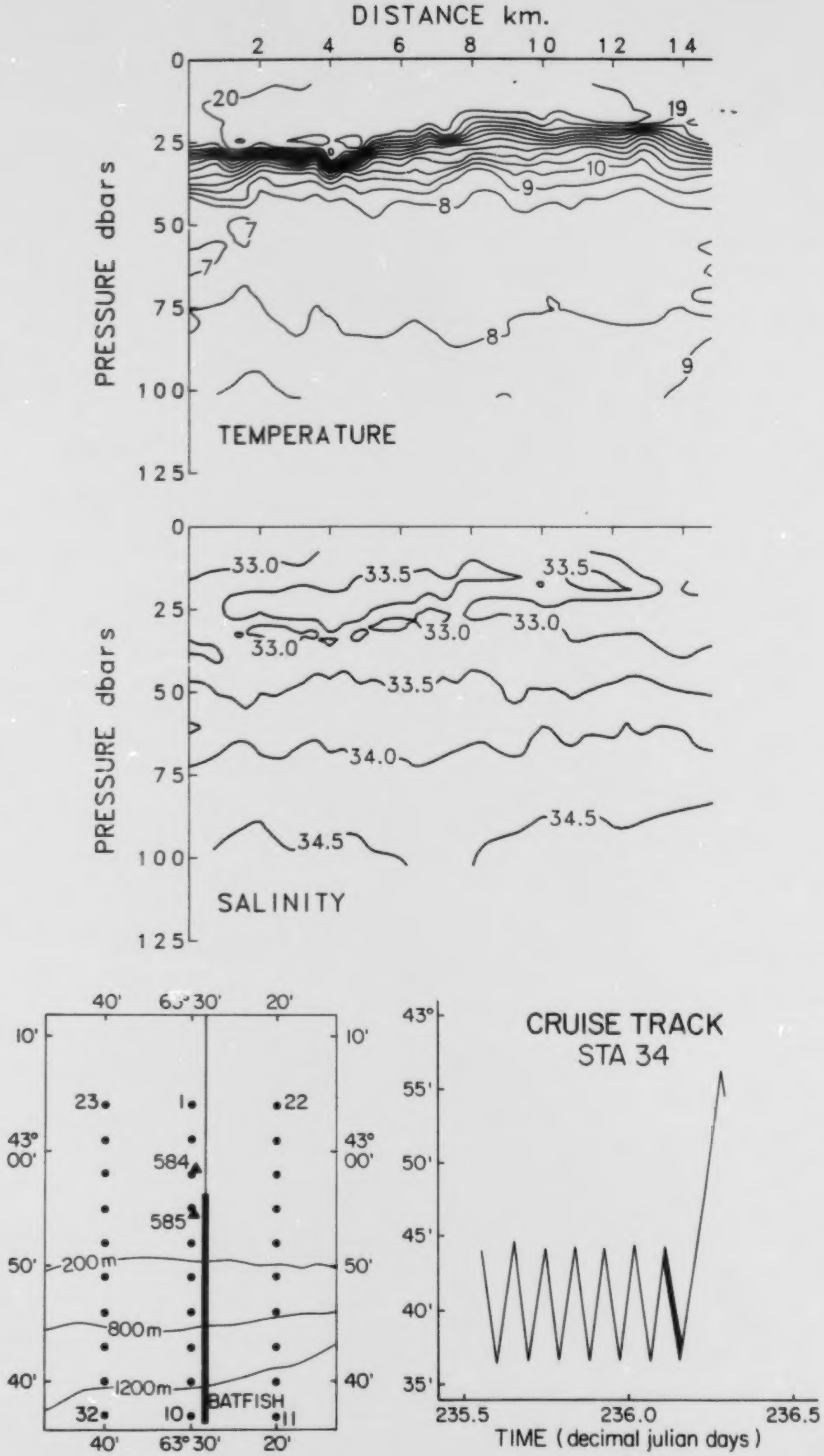

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
19
10
9
8
7
7
8
9
TEMPERATURE
33.0
33.5
33.5
33.0
33.0
33.0
33.5
34.0
34.5
34.5
SALINITY
40'
63°30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 84

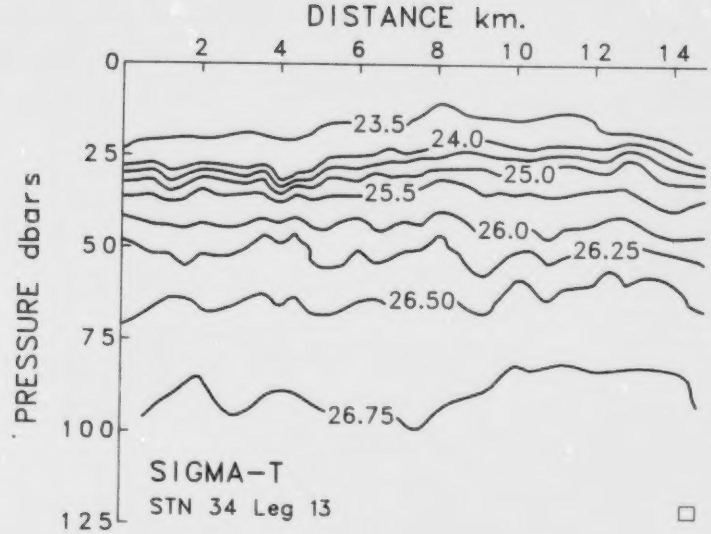

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 13
□

Fig. 85

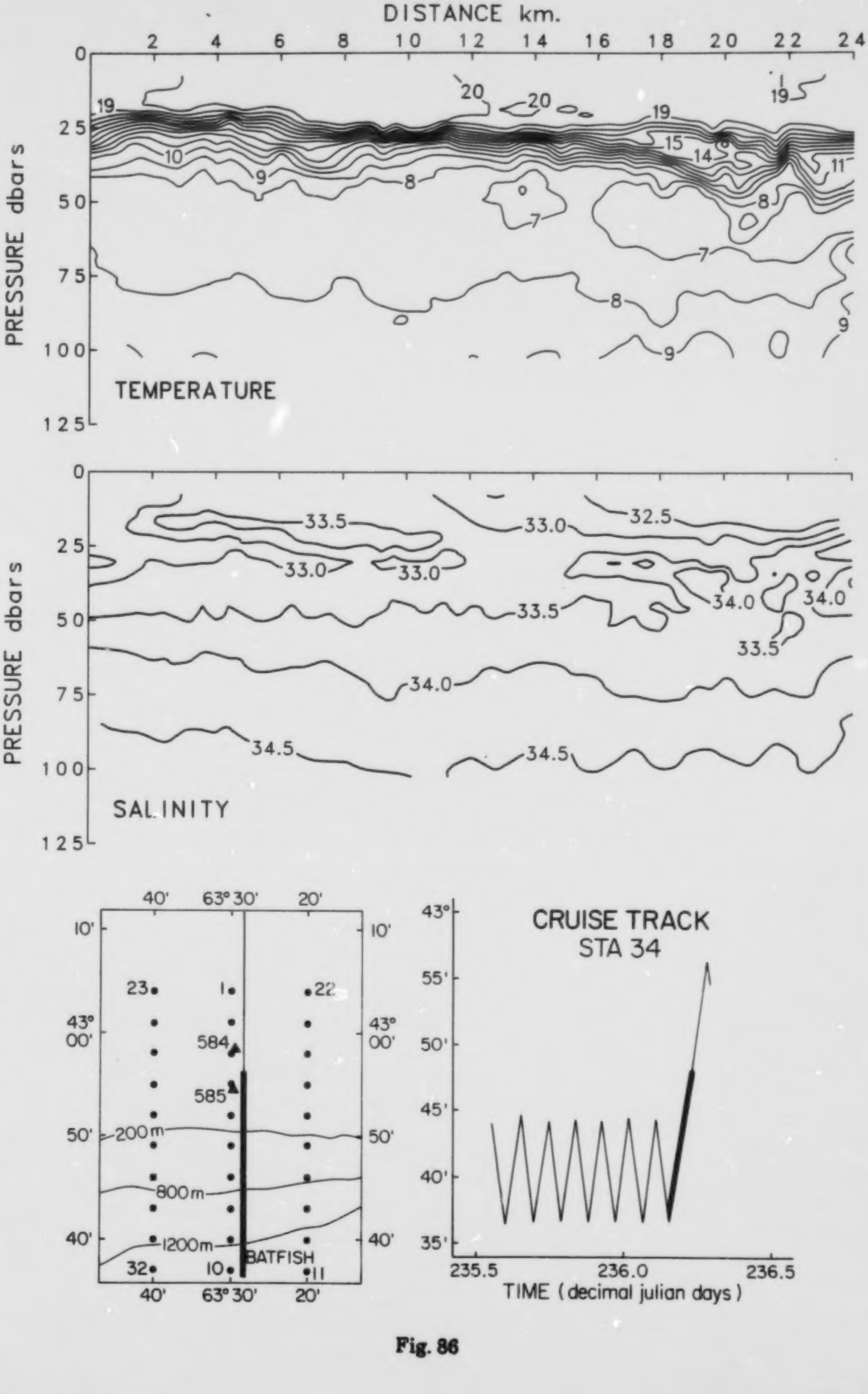

DISTANCE km.
2
4
6
8
10
12
14
16
18
20
22
24
0
25
50
75
100
125
PRESSURE dbars
19
20
20
19
19
10
9
8
7
15
14
16
11
8
7
8
9
9
TEMPERATURE
33.5
33.0
33.0
33.0
32.5
34.0
34.0
33.5
33.5
34.0
34.5
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 86

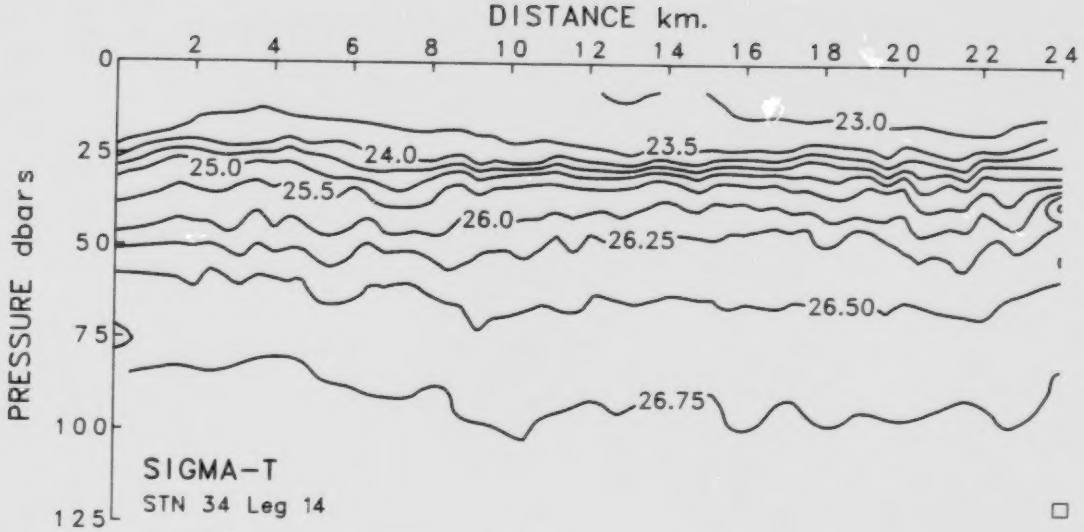

DISTANCE km.
2
4
6
8
10
12
14
16
18
20
22
24
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 14

Fig. 87

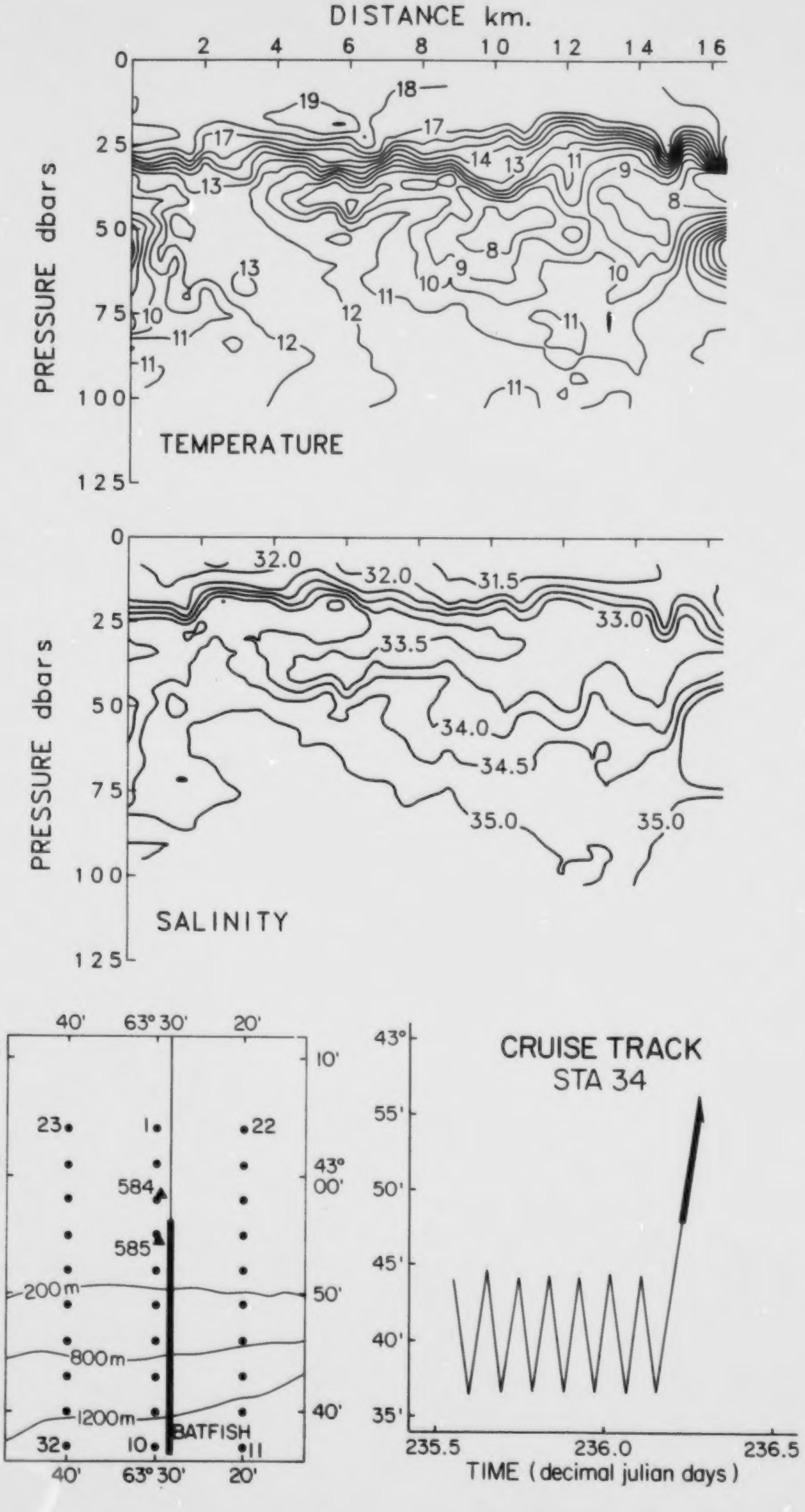

DISTANCE km.
2
4
6
8
10
12
14
16
PRESSURE dbars
0
25
50
75
100
125
19
18
17
17
14
13
11
9
13
8
8
9
10
10
13
11
12
12
11
11
10
11
11
TEMPERATURE
32.0
32.0
31.5
33.0
33.5
34.0
34.5
35.0
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 88

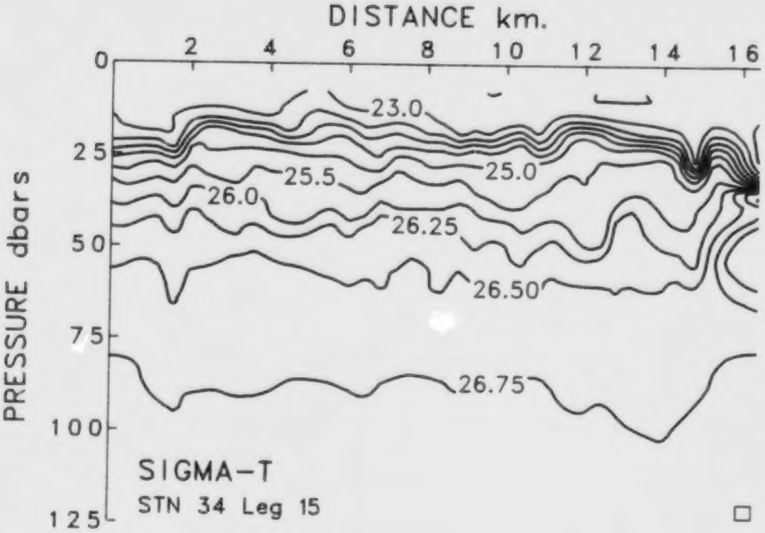

DISTANCE km.
2
4
6
8
10
12
14
16
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 34 Leg 15

Fig. 89

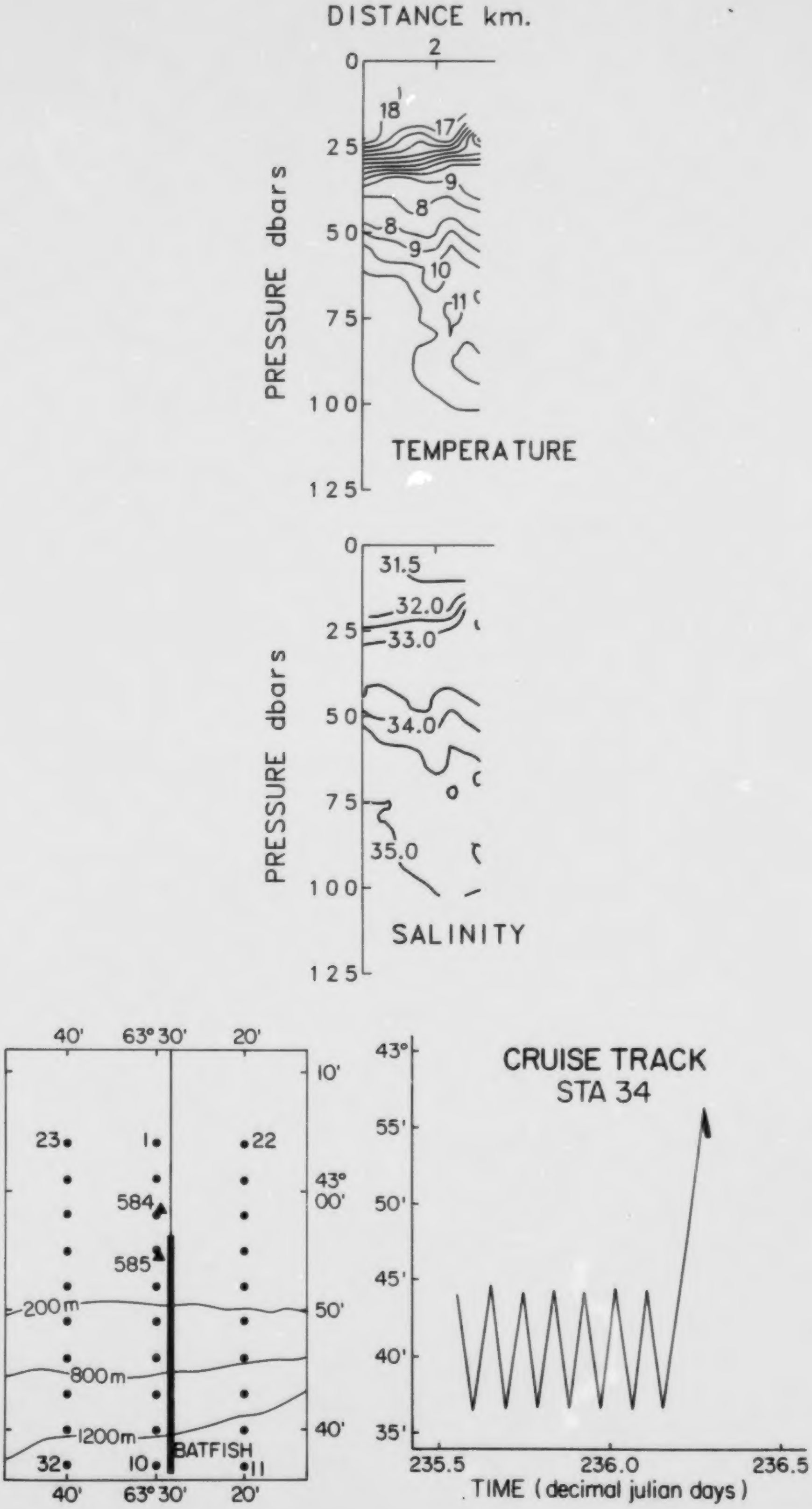
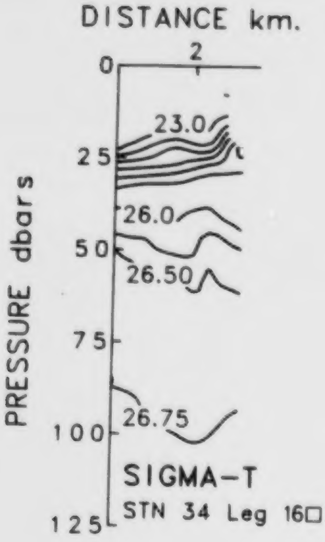

DISTANCE km.
2
0
25
50
75
100
125
PRESSURE dbars
18
17
9
8
8
9
10
11
TEMPERATURE
31.5
32.0
33.0
34.0
35.0
SALINITY
40'
63°30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 34
43°
55'
50'
45'
40'
35'
235.5
236.0
236.5
TIME (decimal julian days)

Fig. 90


DISTANCE km.
0
2
25
50
75
100
125
PRESSURE dbars
23.0
26.0
26.50
26.75
SIGMA-T
STN 34 Leg 16□

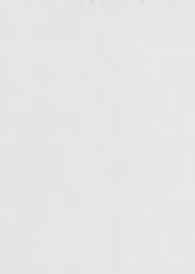

200 m

Fig. 91

Figures 92-123

BATFISH station 35, 16 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

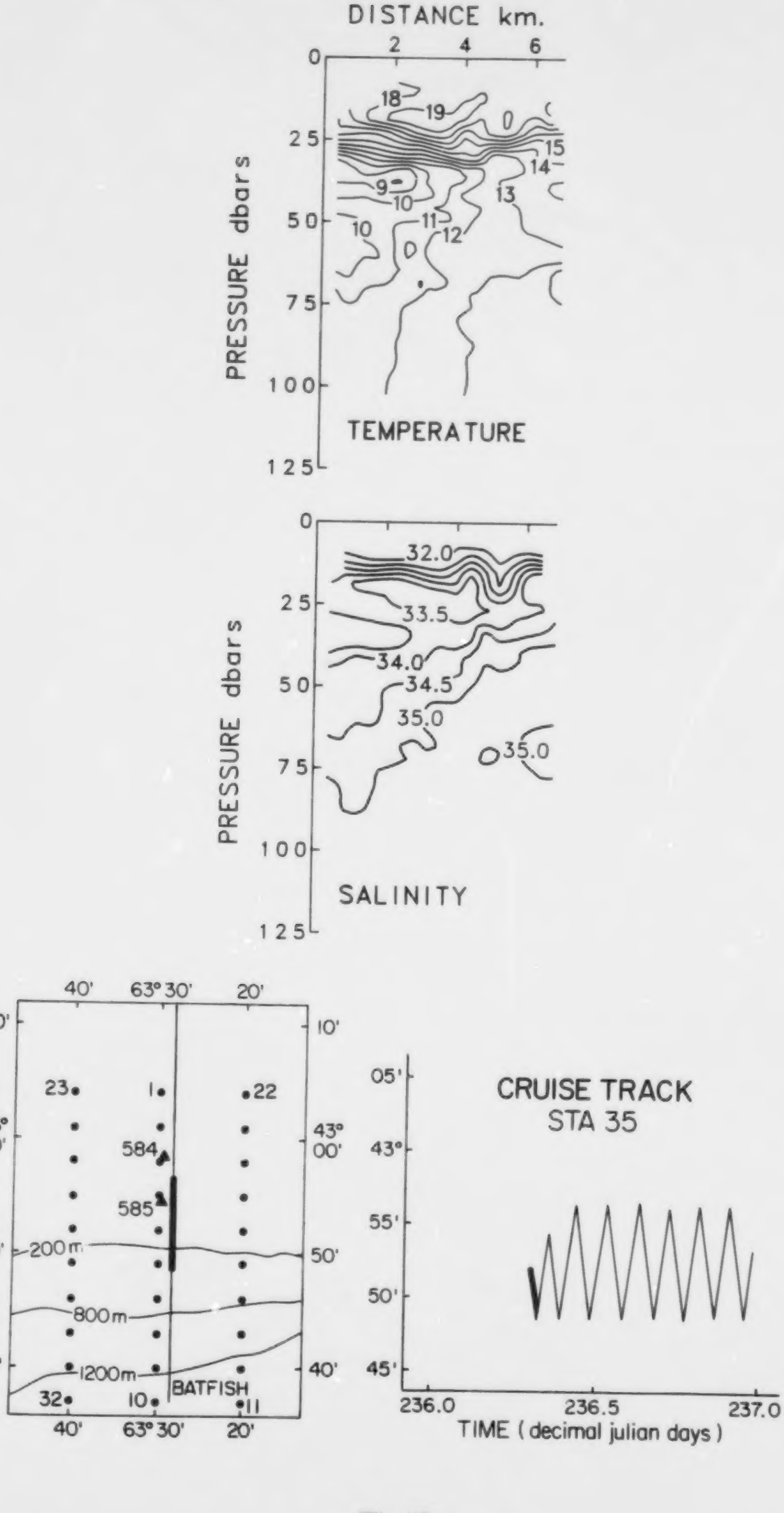

DISTANCE km.
0
2
4
6
25
50
75
100
125
PRESSURE dbars
18
19
15
14
13
9
10
11
12
TEMPERATURE
32.0
33.5
34.0
34.5
35.0
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
32
10
11
200m
800m
1200m
BATFISH
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 92

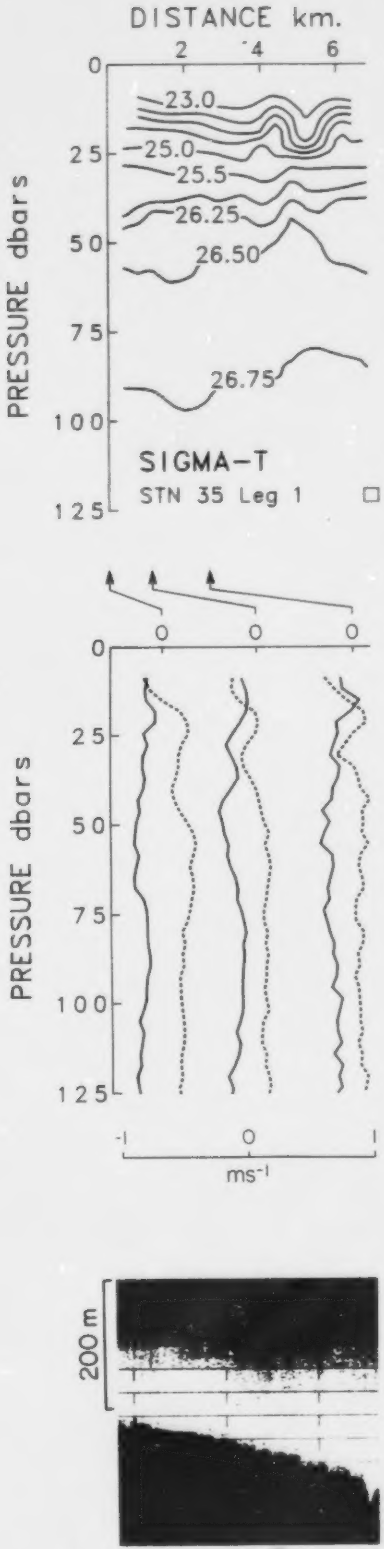

DISTANCE km.
2
4
6
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 1 □
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 93

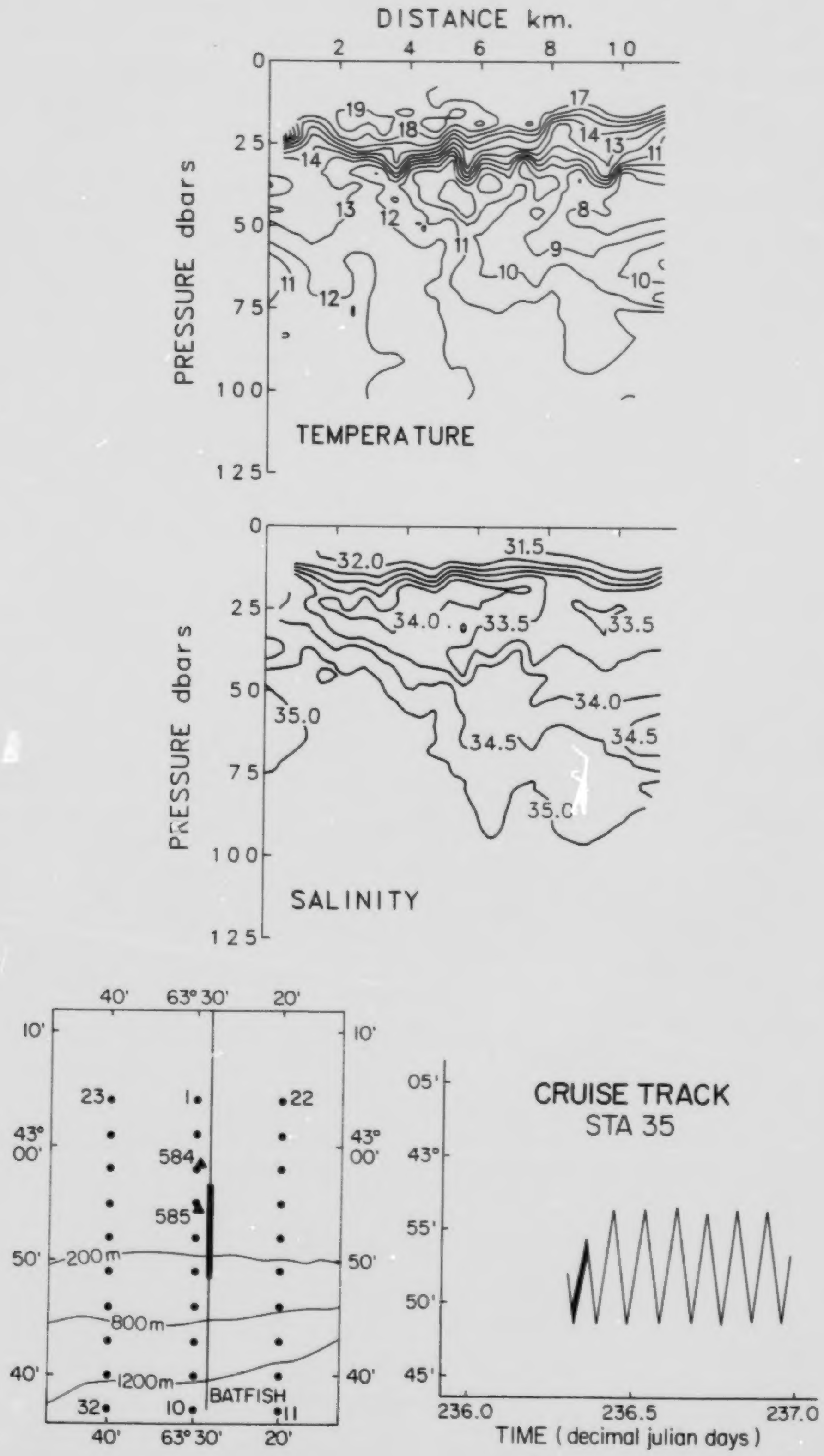

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
19
18
17
14
13
11
12
8
9
10
TEMPERATURE
32.0
31.5
34.0
33.5
34.0
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
23
1
22
584
585
32
10
11
200m
800m
1200m
BATFISH
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 94

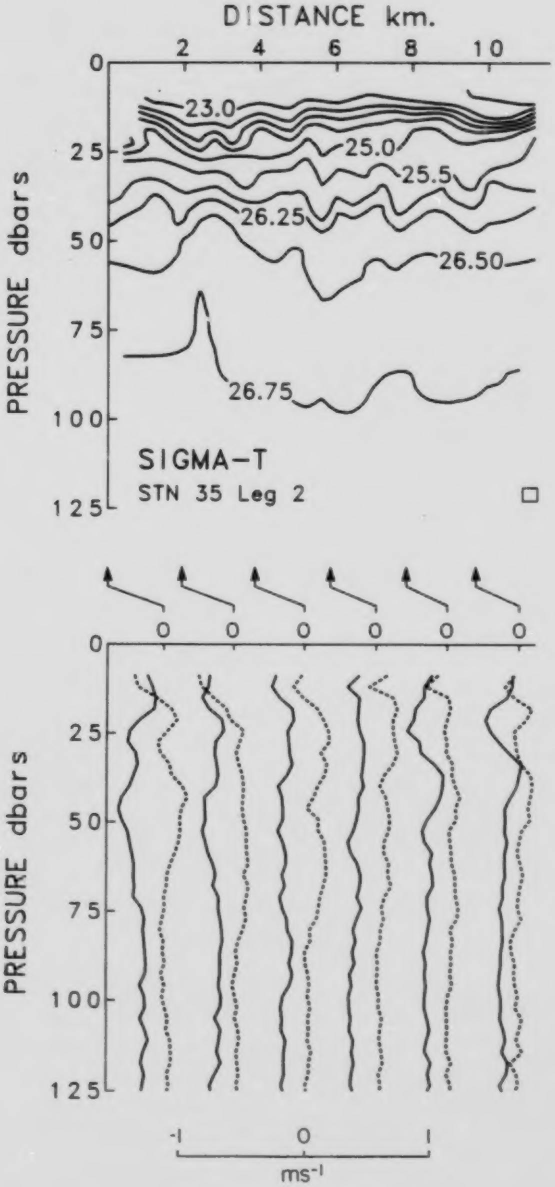

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 2
□
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 95

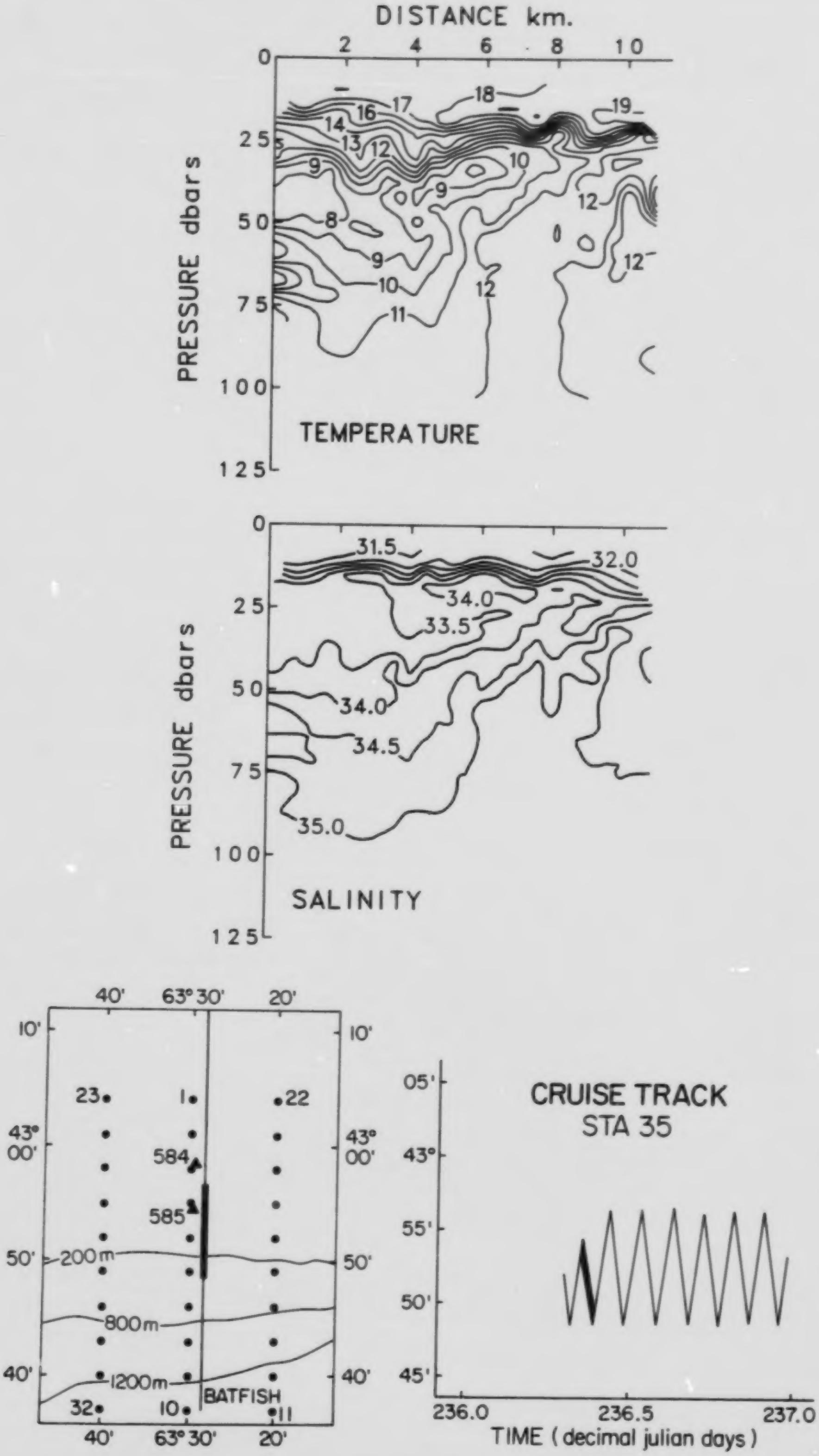

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
17
18
19
16
14
13
12
9
10
9
8
9
10
11
12
12
12
TEMPERATURE
31.5
32.0
34.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 96

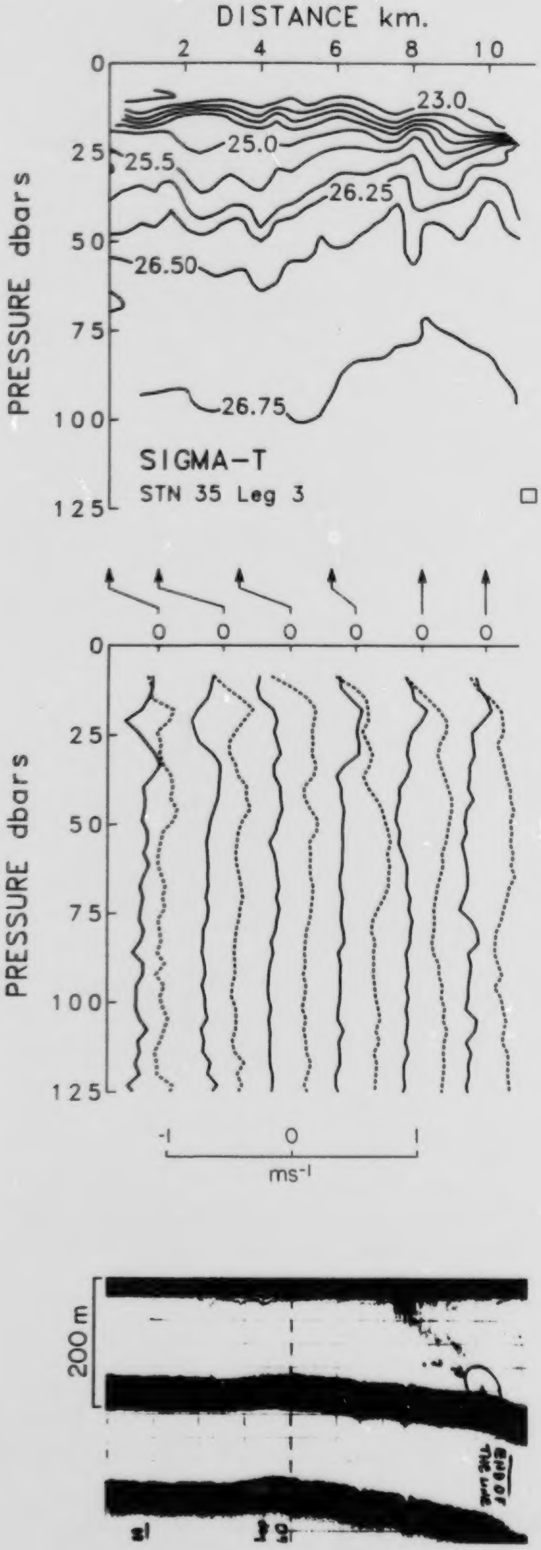

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 3
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m
END OF THE LINE

Fig. 97

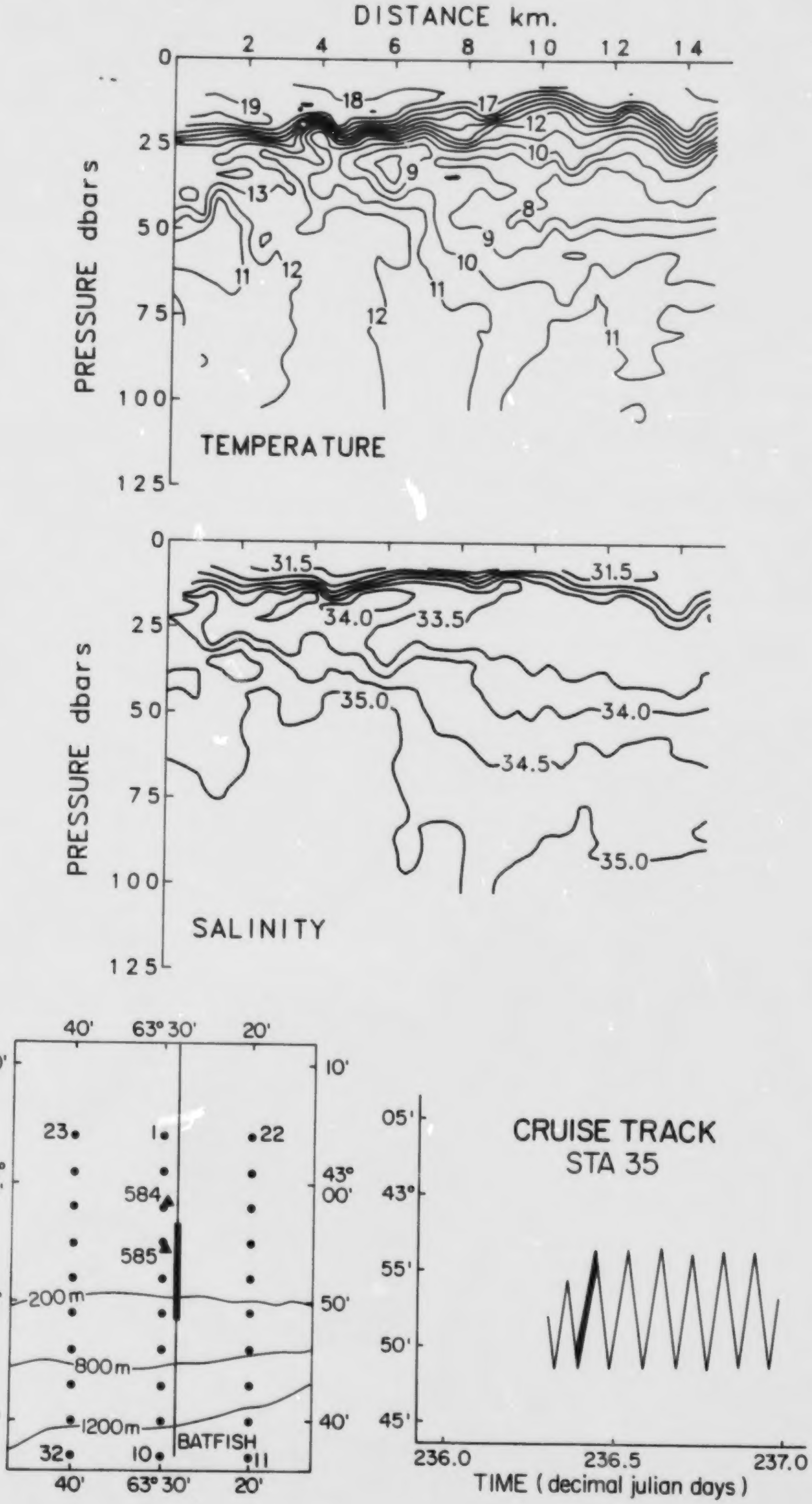

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
19
18
17
12
10
9
13
8
9
10
11
12
11
12
11
TEMPERATURE
31.5
31.5
34.0
33.5
35.0
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 98

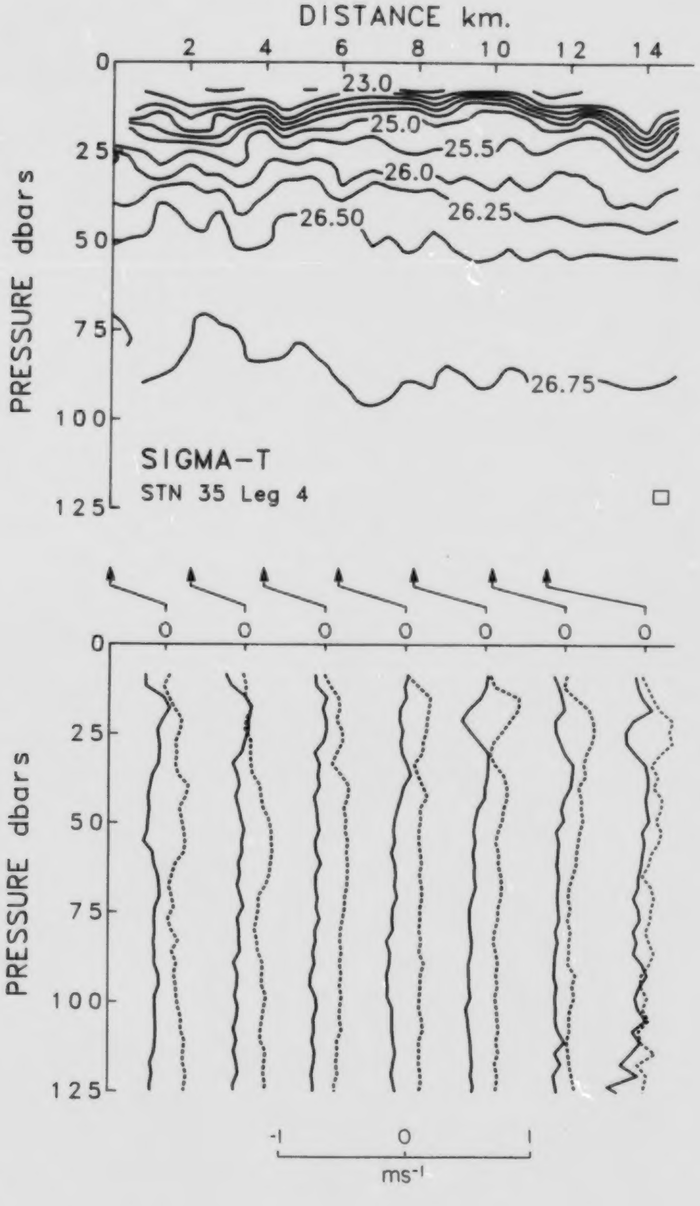

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 4
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms^{-1}

Fig. 99

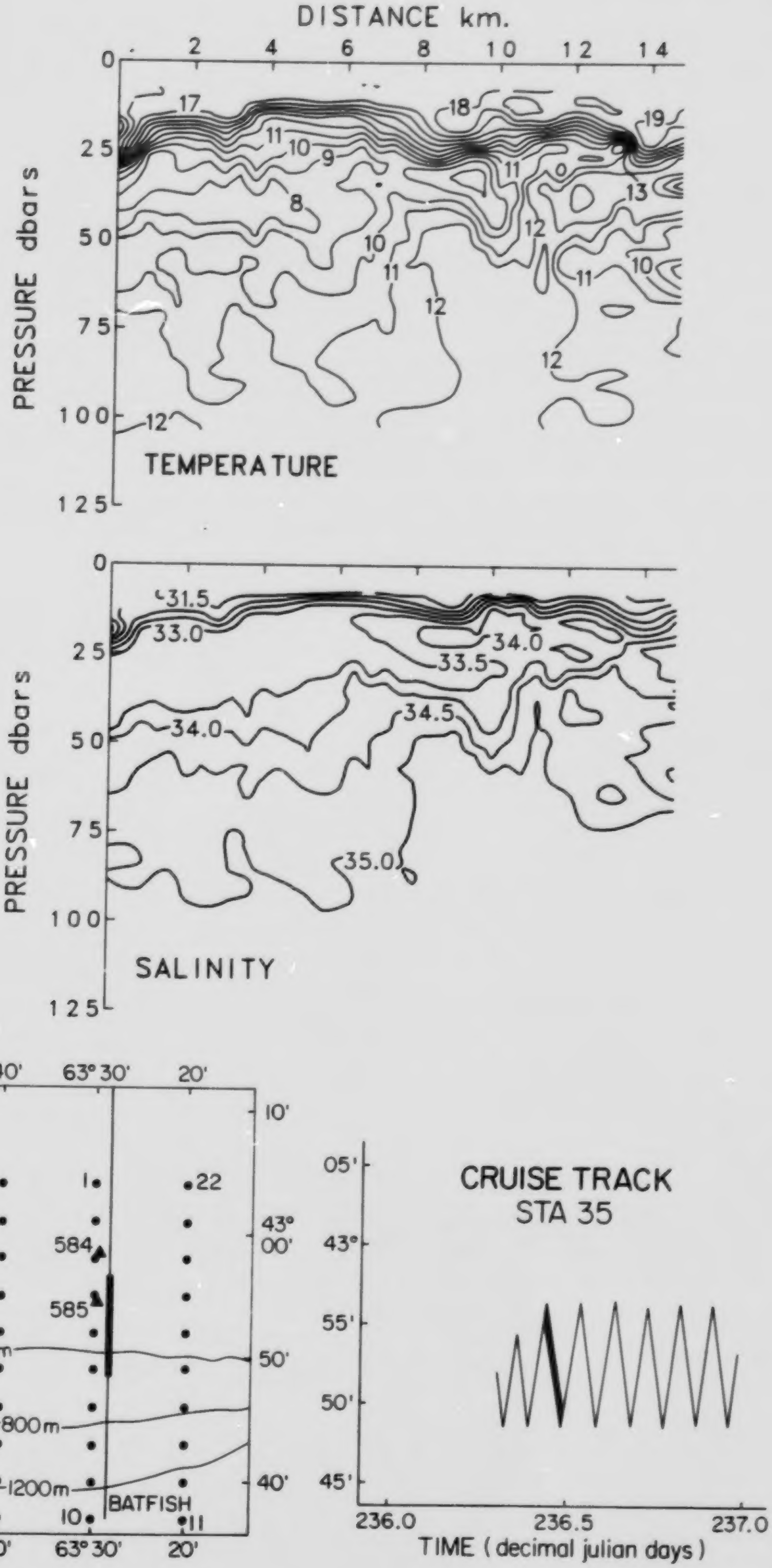

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
17
18
19
11
10
9
8
13
12
TEMPERATURE
31.5
33.0
34.0
33.5
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 35
05'
43°
55'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 100

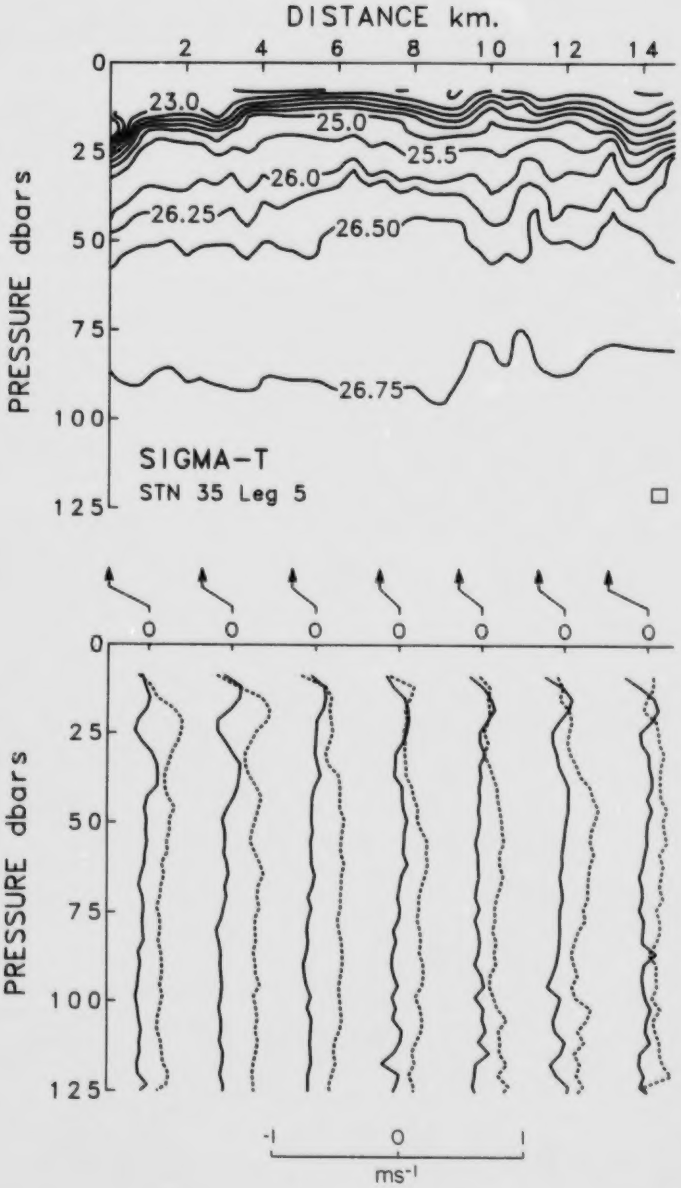

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 5
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 101

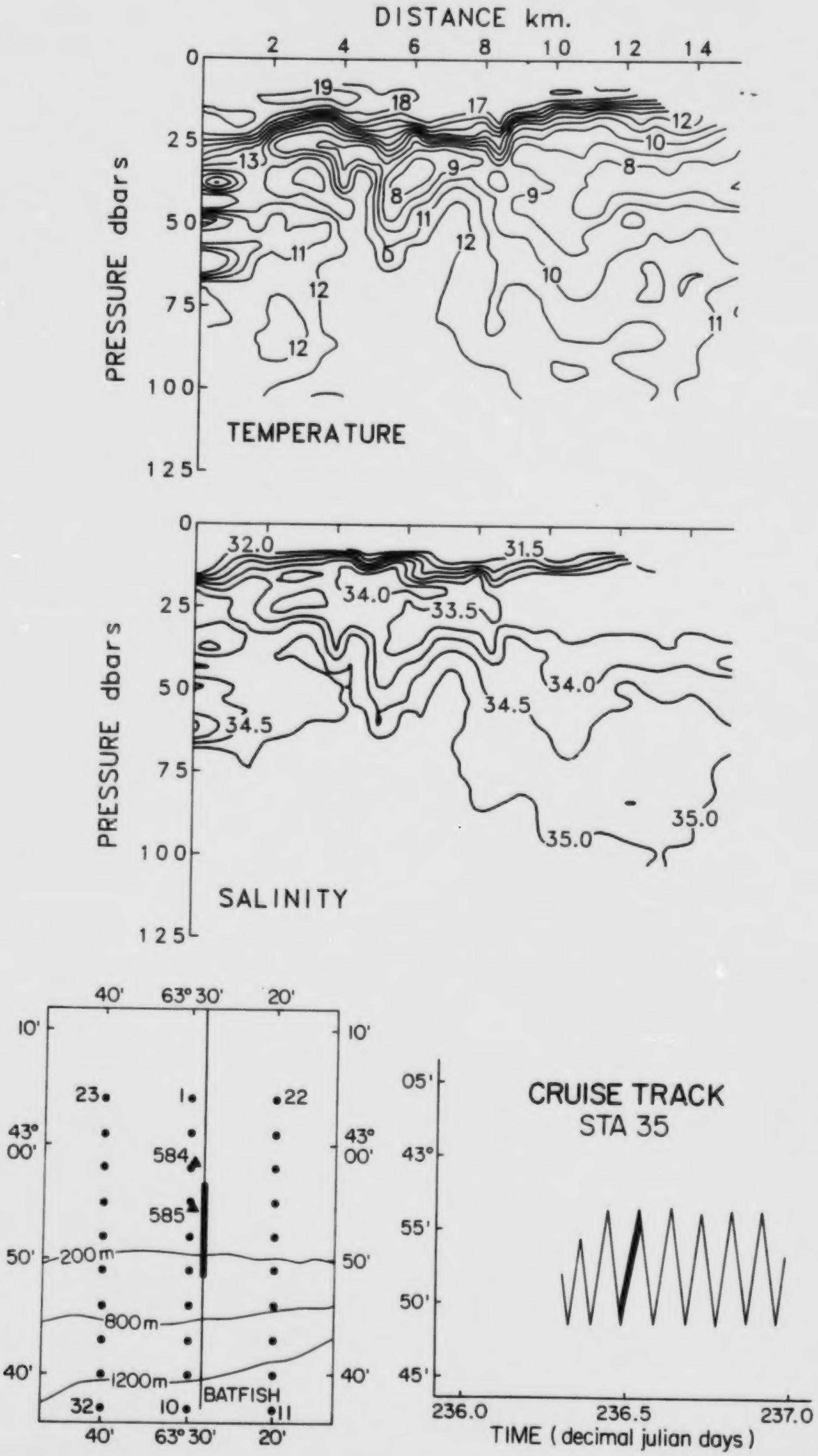

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
19
18
17
12
10
8
13
9
8
9
11
11
12
12
10
12
11
12
TEMPERATURE
32.0
31.5
34.0
33.5
34.0
34.5
34.5
35.0
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 102

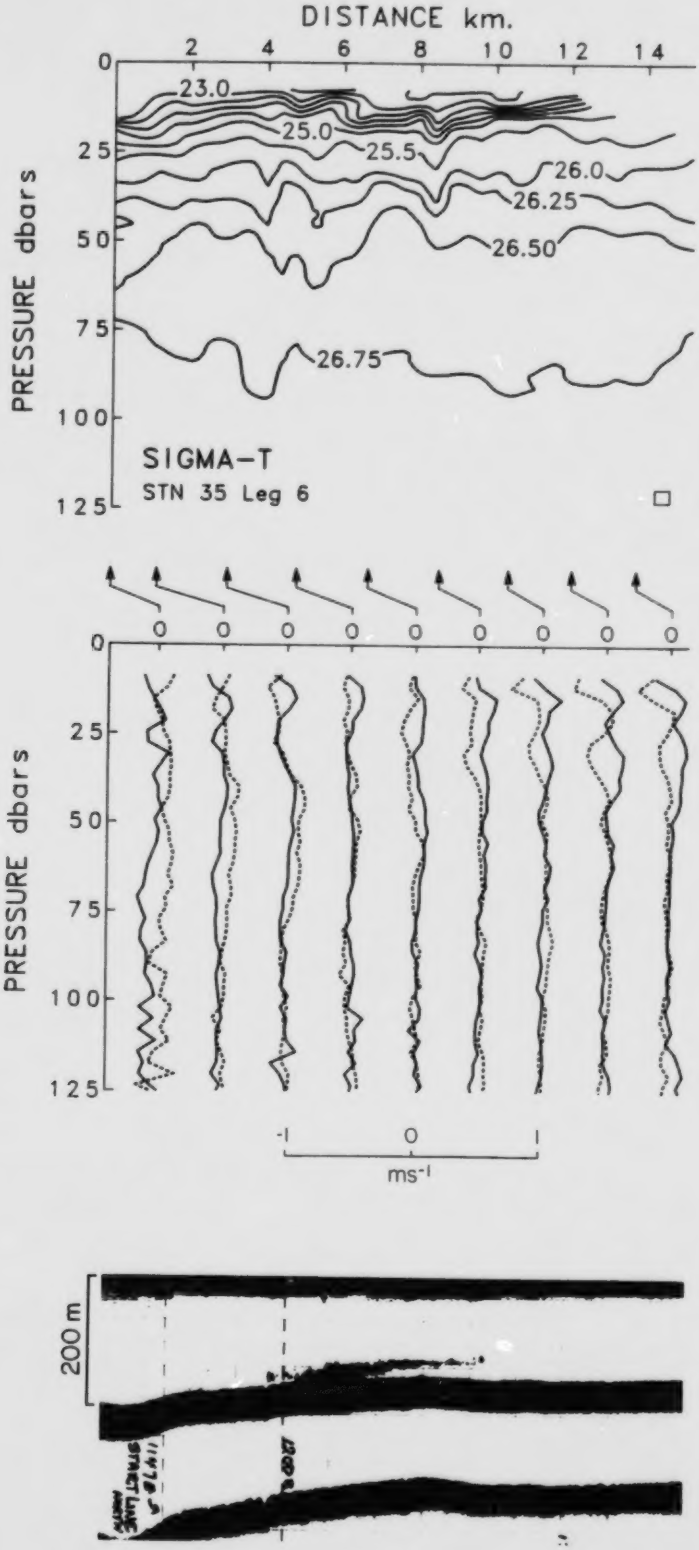

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 6
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m
START LINE
1147

Fig. 103

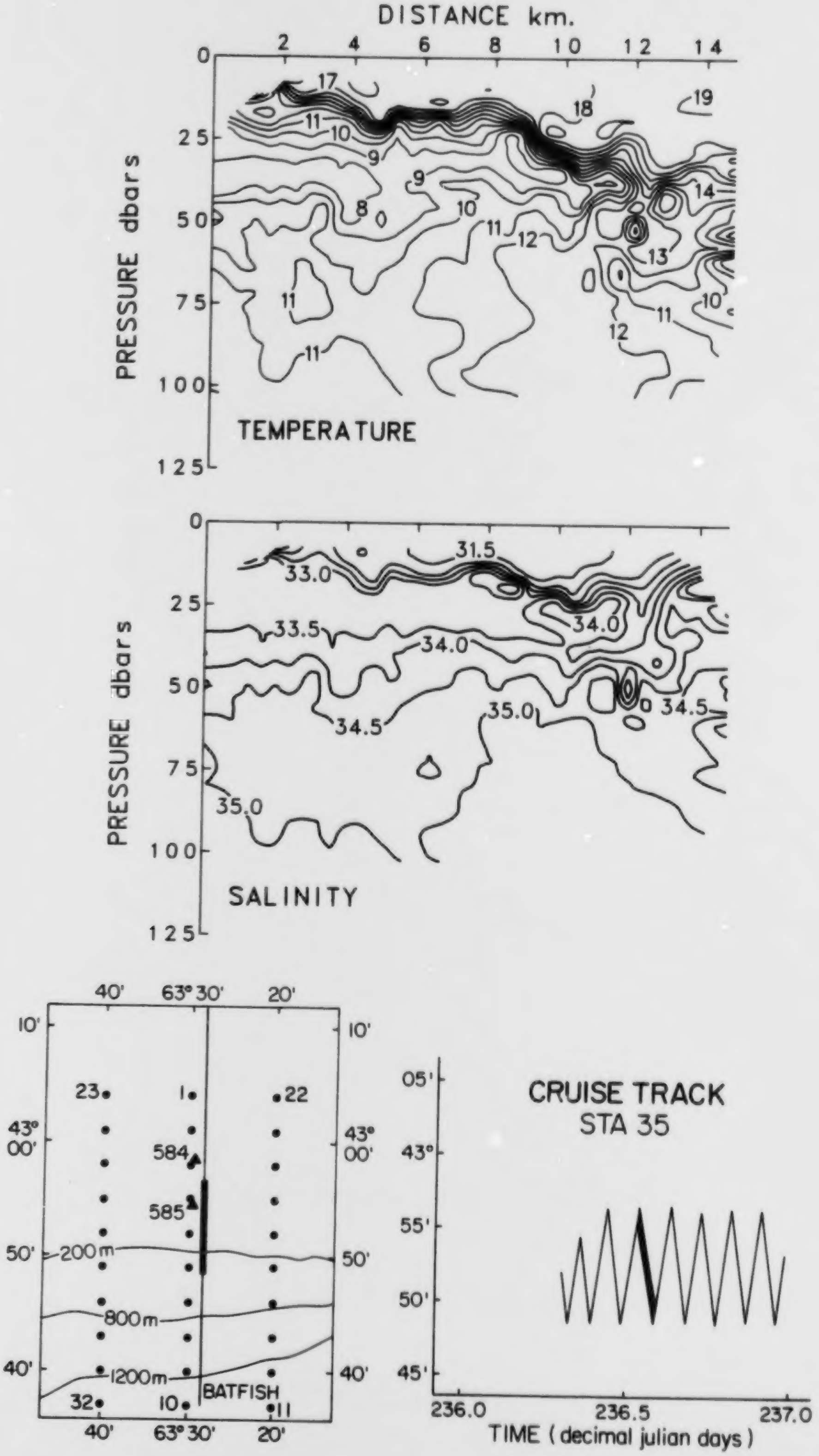

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
17
11
10
9
9
8
10
11
12
18
19
14
13
11
11
11
10
12
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
33.0
33.5
34.0
34.0
34.5
35.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 104

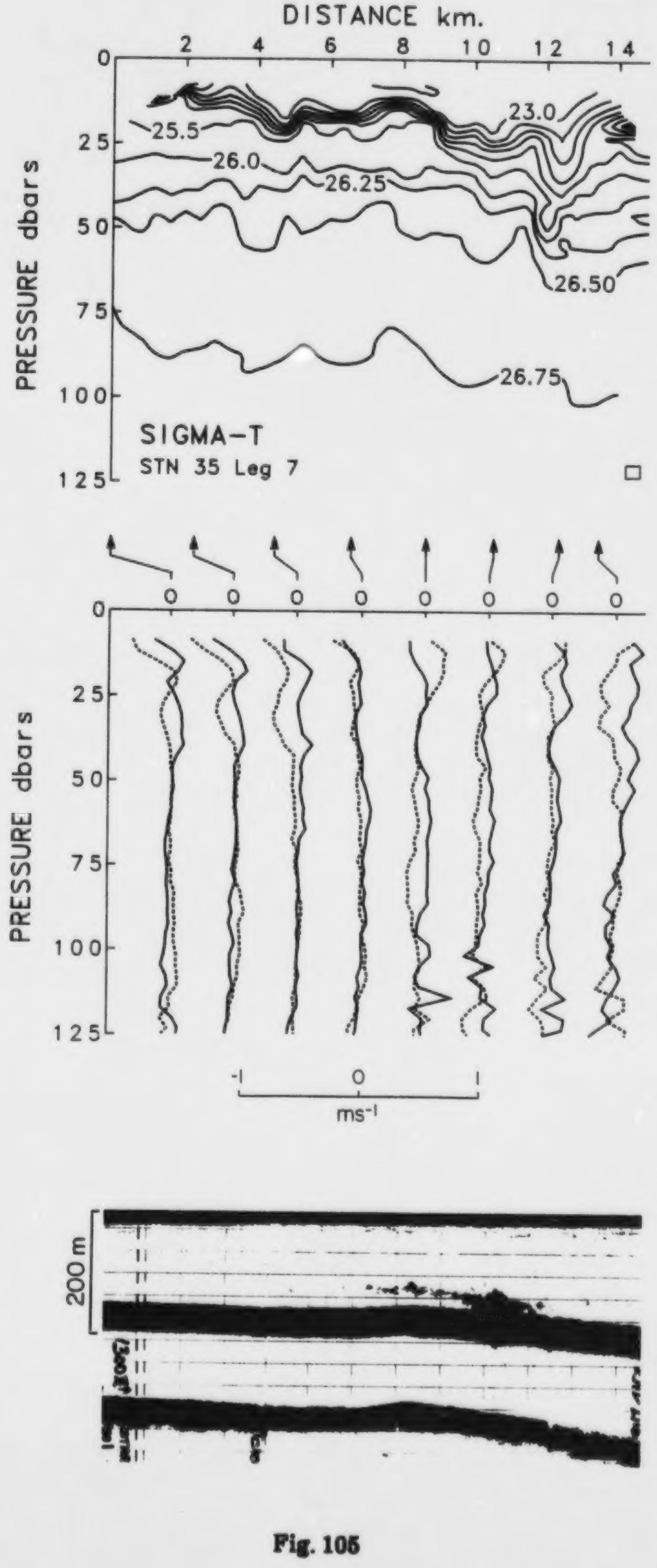

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 7
0
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 105

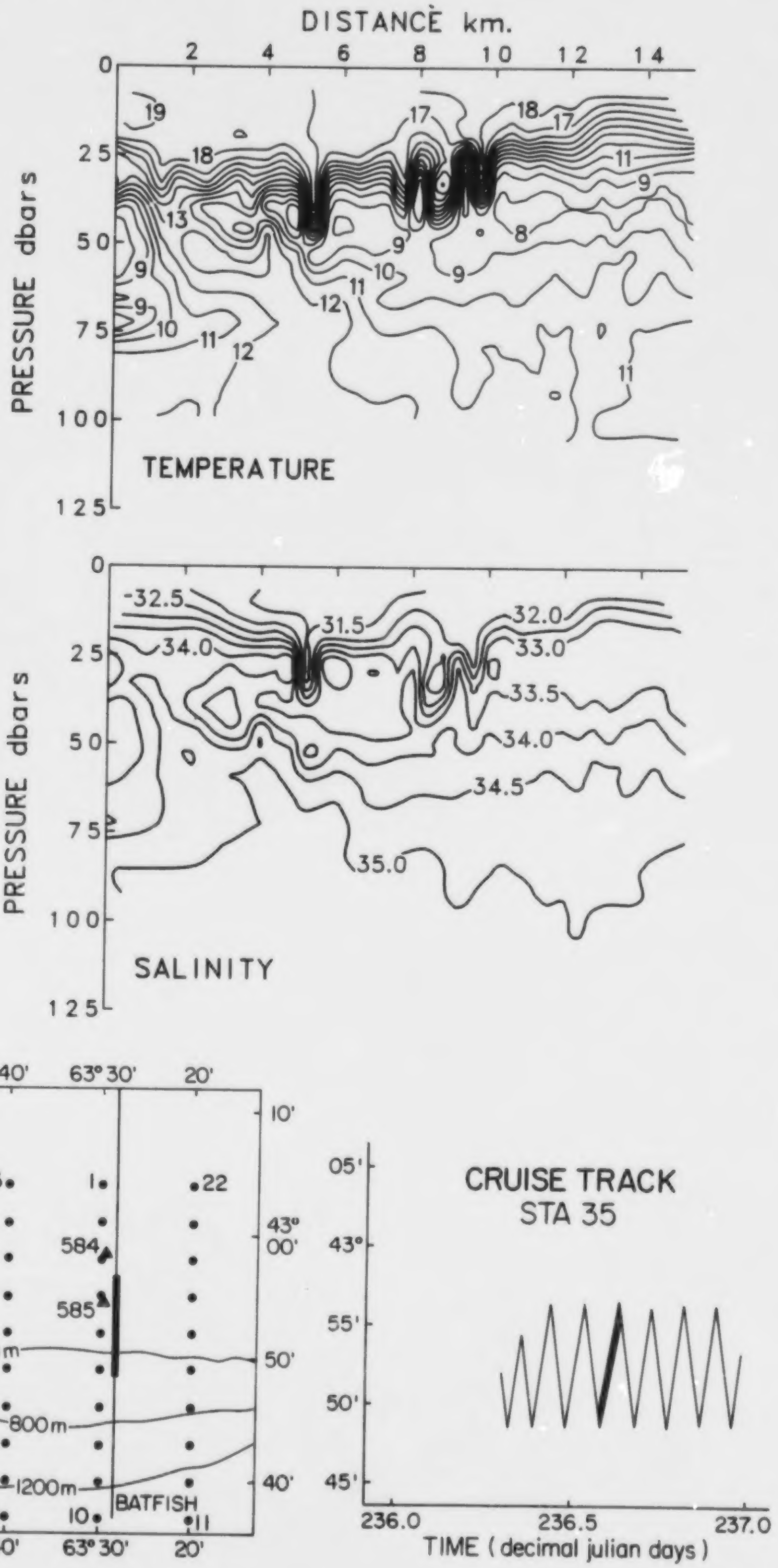

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
18
17
18
17
11
9
13
8
9
9
10
9
11
12
9
9
10
11
12
11
TEMPERATURE
-32.5
31.5
32.0
34.0
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
23
1
22
43° 00'
584
585
50'
200m
800m
40'
1200m
32
10
BATFISH
11
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 106

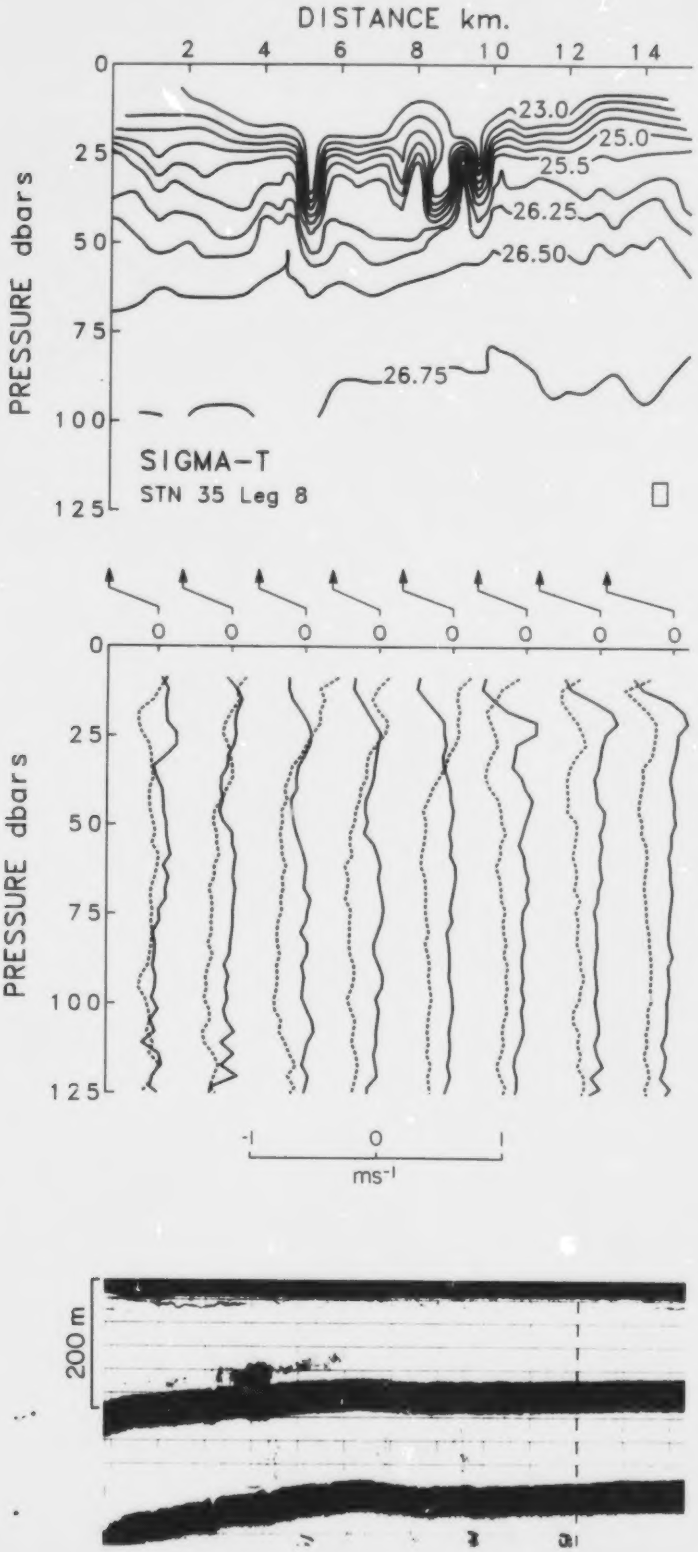

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 8
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 107

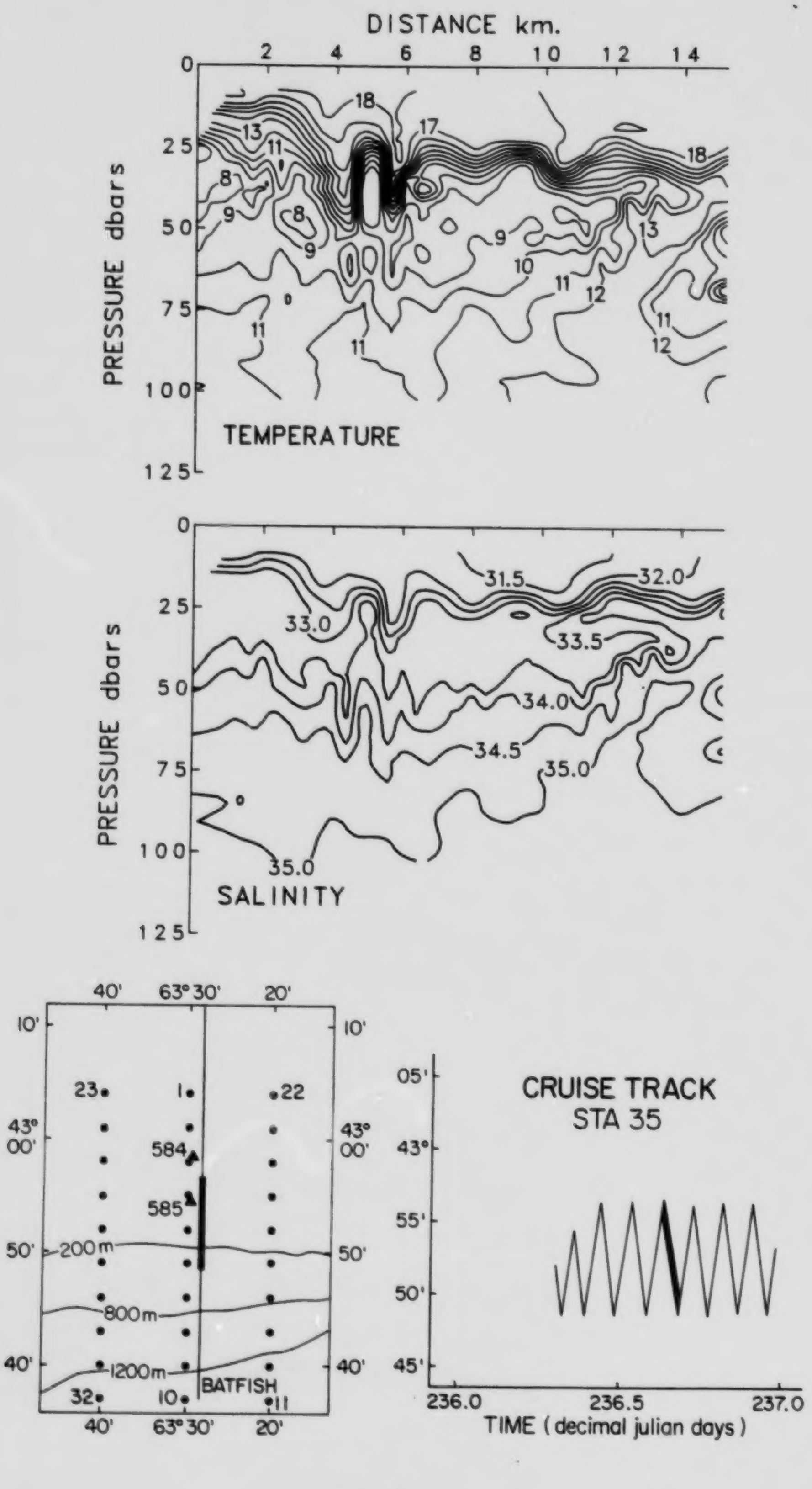

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
13
11
8
9
8
9
10
11
12
13
11
12
11
11
18
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
33.0
33.5
34.0
34.5
35.0
35.0
SALINITY
40'
63° 30'
20'
10'
10'
23
1
22
43° 00'
43° 00'
584
585
50'
-200m
50'
800m
40'
1200m
40'
32
10
11
BATFISH
40'
63° 30'
20'
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 108

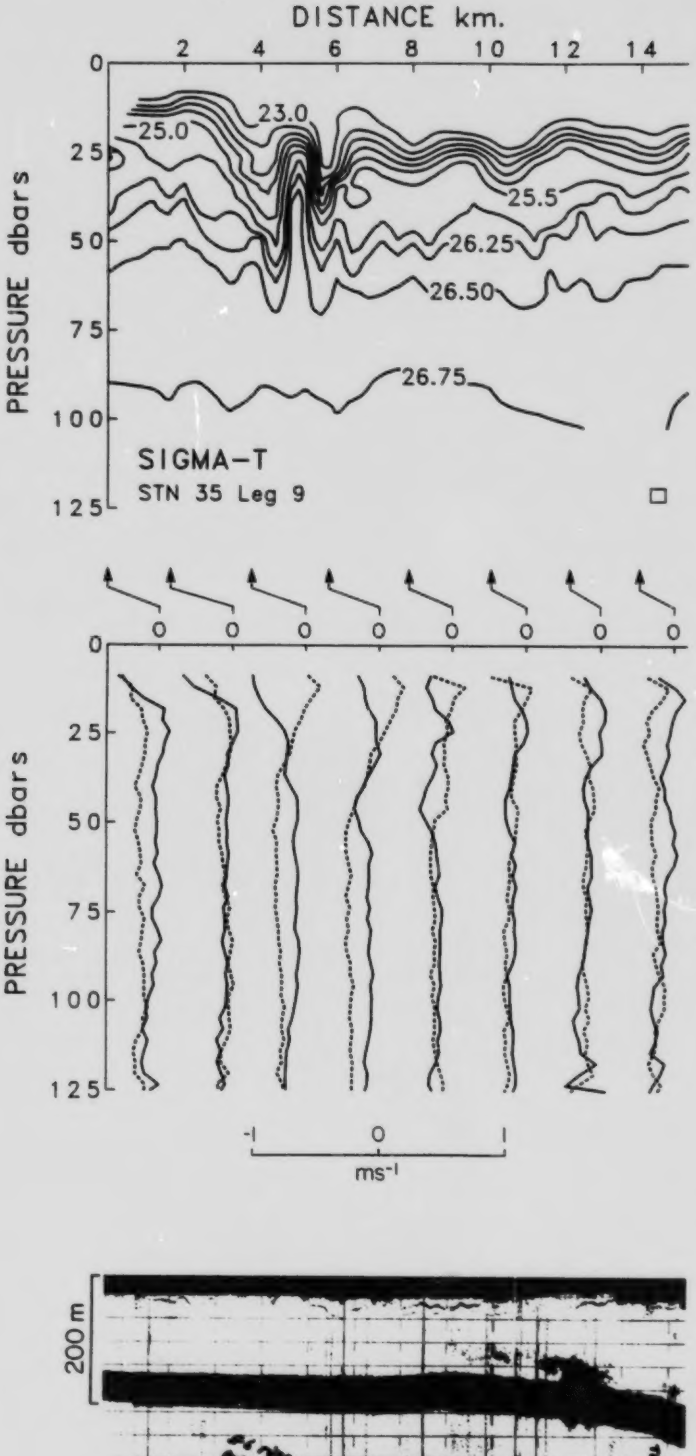

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 9
0
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 109

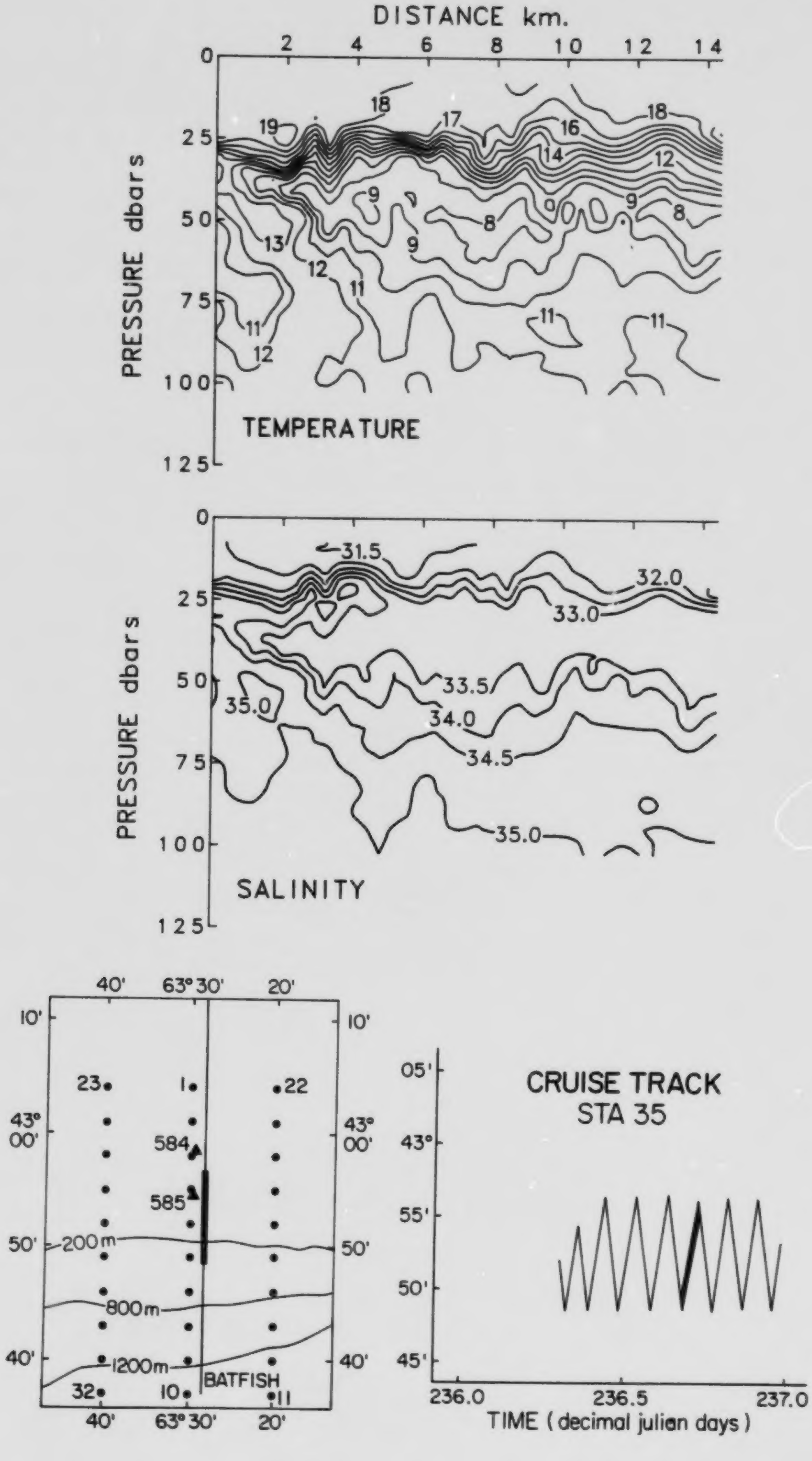

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
19
18
17
16
14
12
9
8
13
12
11
11
12
11
11
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
31.5
32.0
33.0
33.5
34.0
34.5
35.0
35.0
SALINITY
40'
63°30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 110

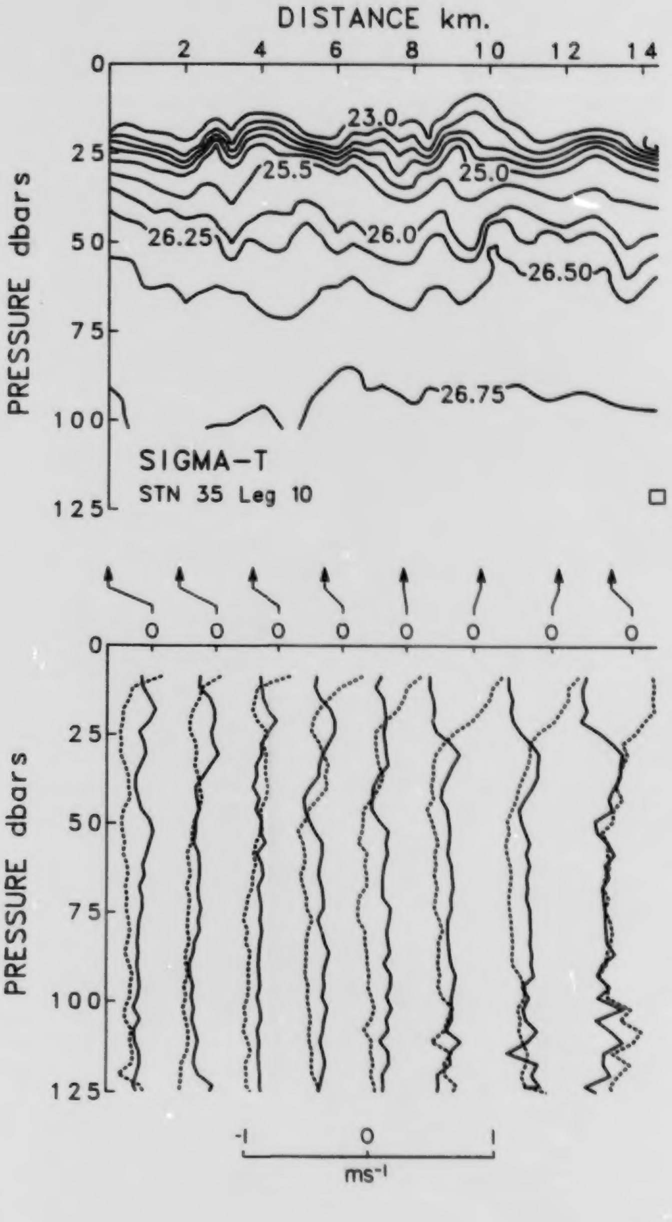

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
25.0
26.25
26.0
26.50
26.75
SIGMA-T
STN 35 Leg 10
0
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹

Fig. 111

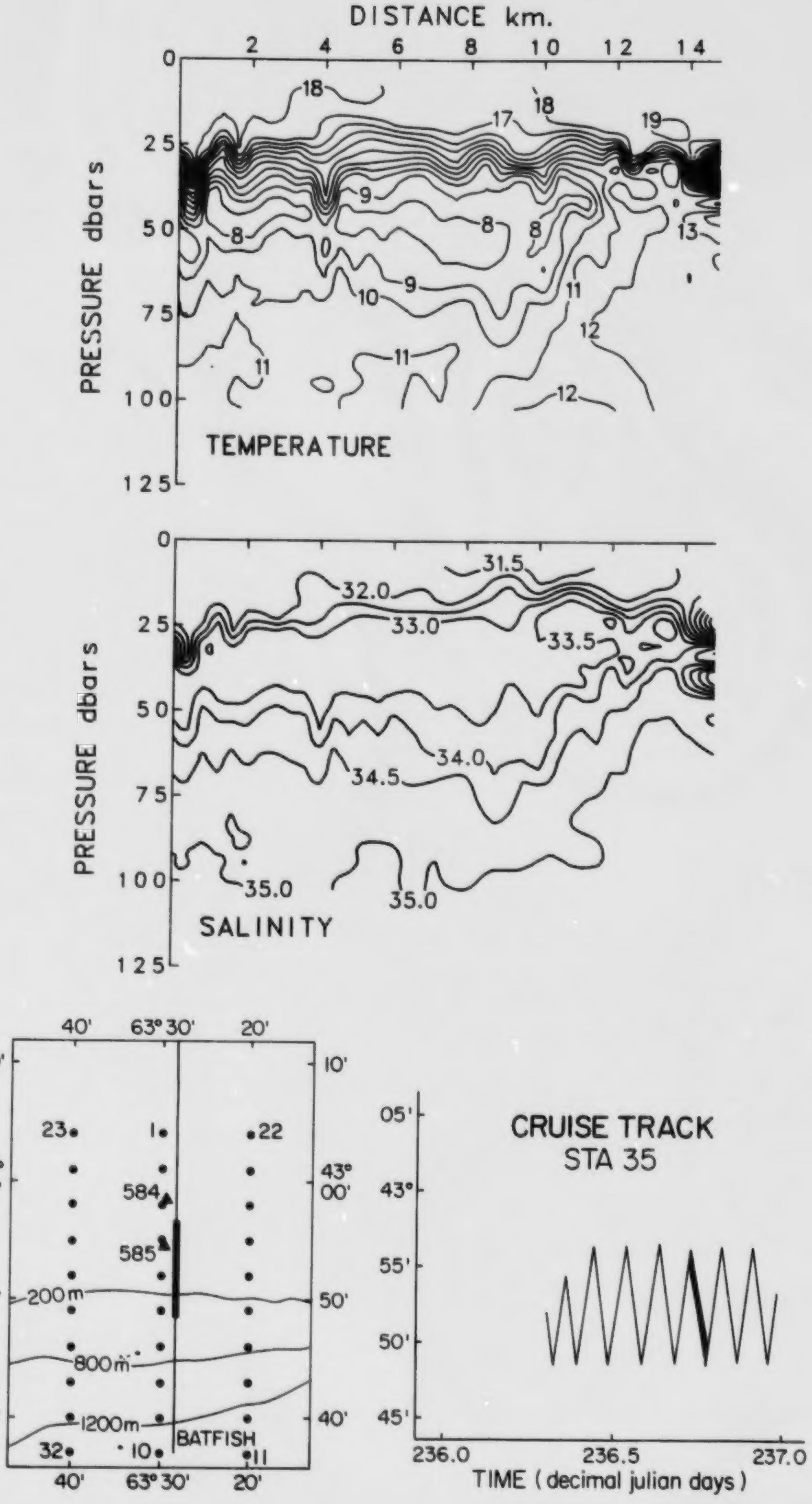

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
18
18
17
19
9
8
8
8
13
0
10
9
11
11
12
11
12
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
31.5
32.0
33.0
33.5
34.0
34.5
35.0
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 112

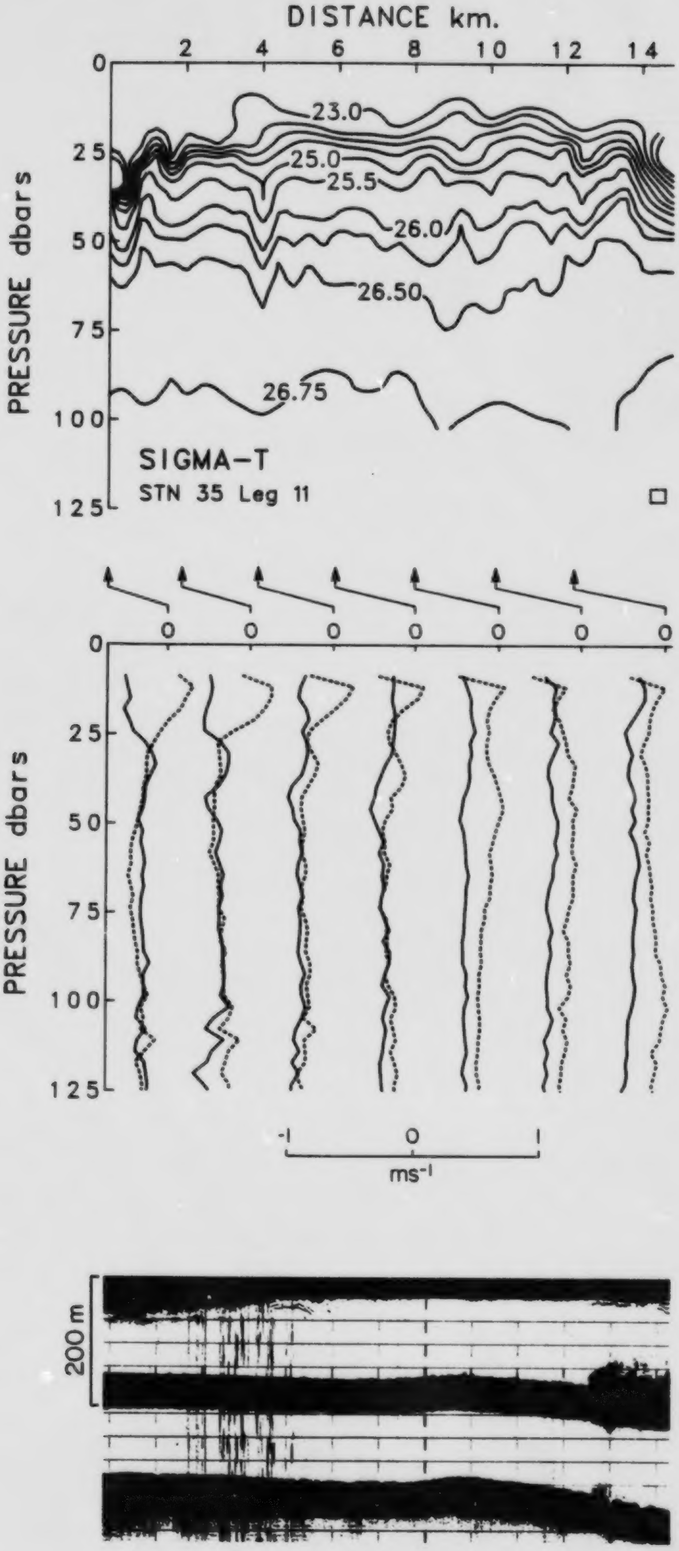

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.50
26.75
SIGMA-T
STN 35 Leg 11
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 113

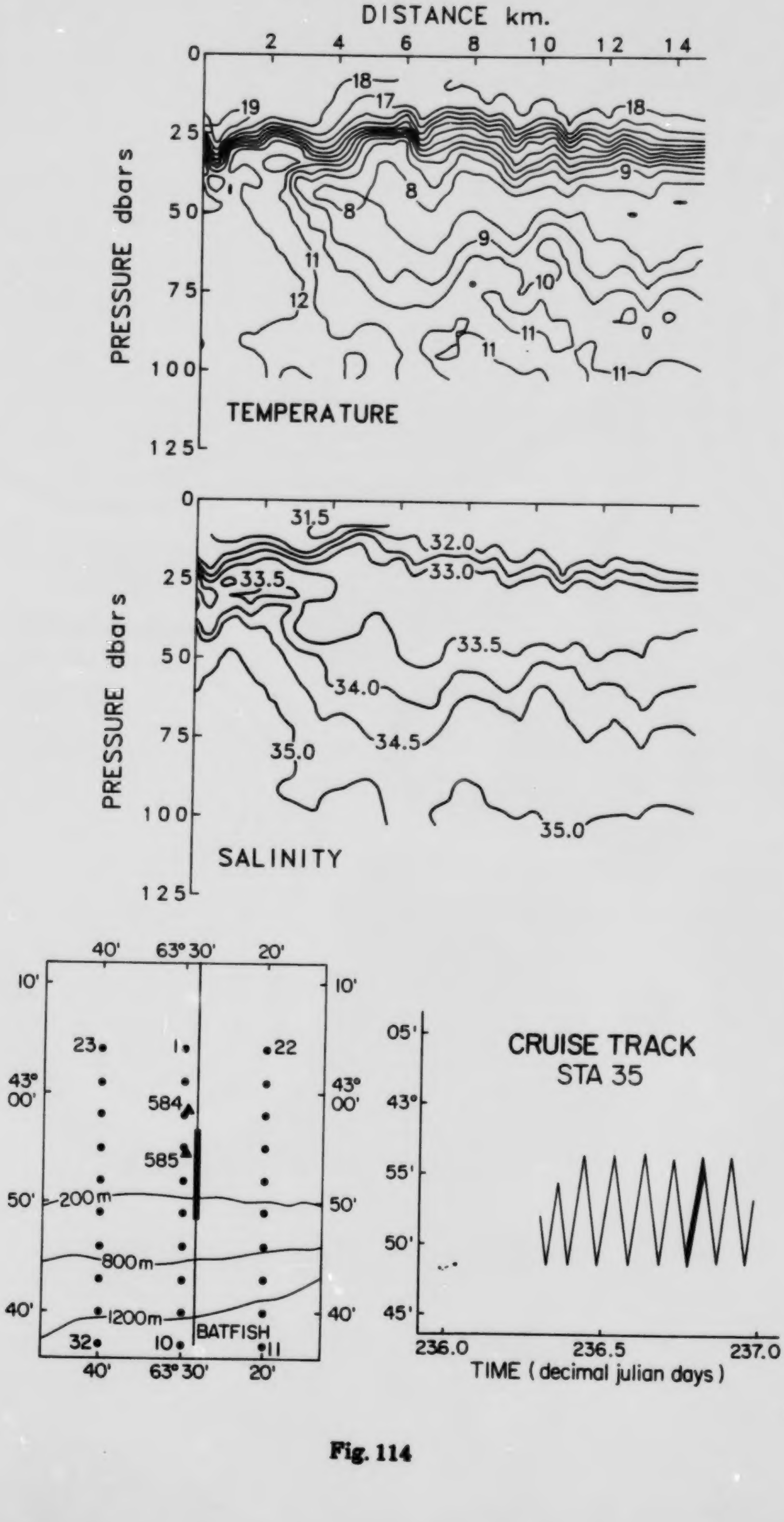

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
19
18
17
9
8
8
9
10
11
12
11
11
11
18
TEMPERATURE
0
31.5
32.0
33.0
33.5
33.5
34.0
34.5
35.0
35.0
PRESSURE dbars
25
50
75
100
125
SALINITY
40'
63°30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 114

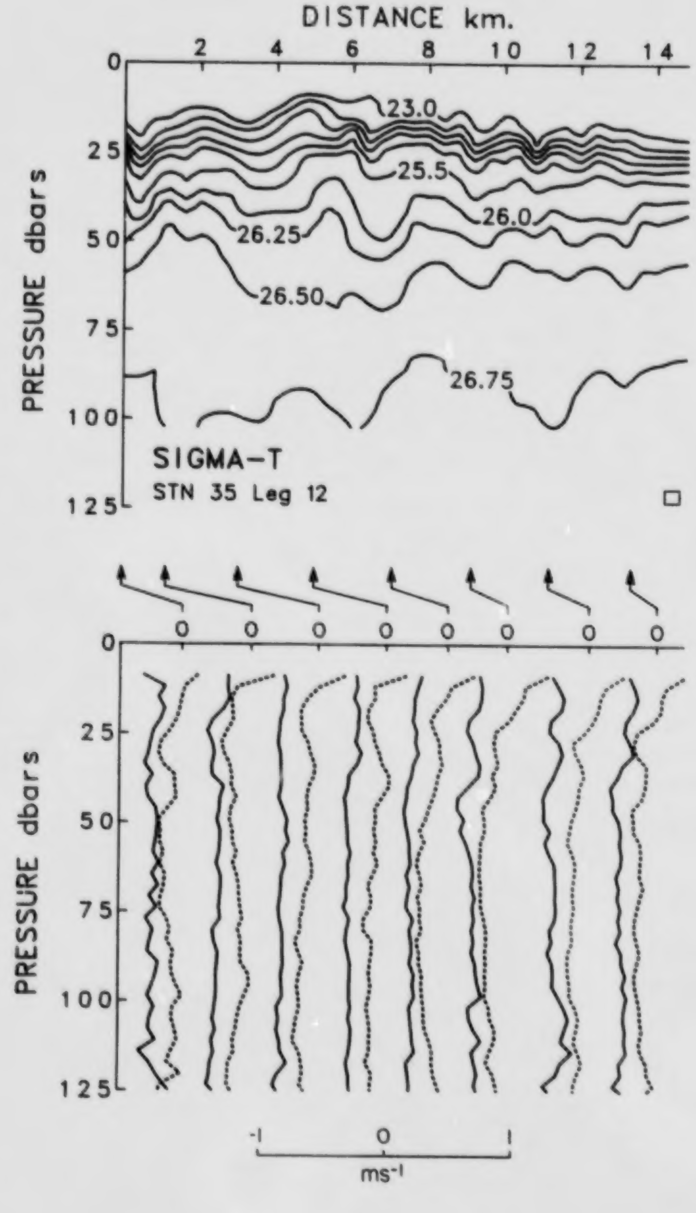

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 12
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 115

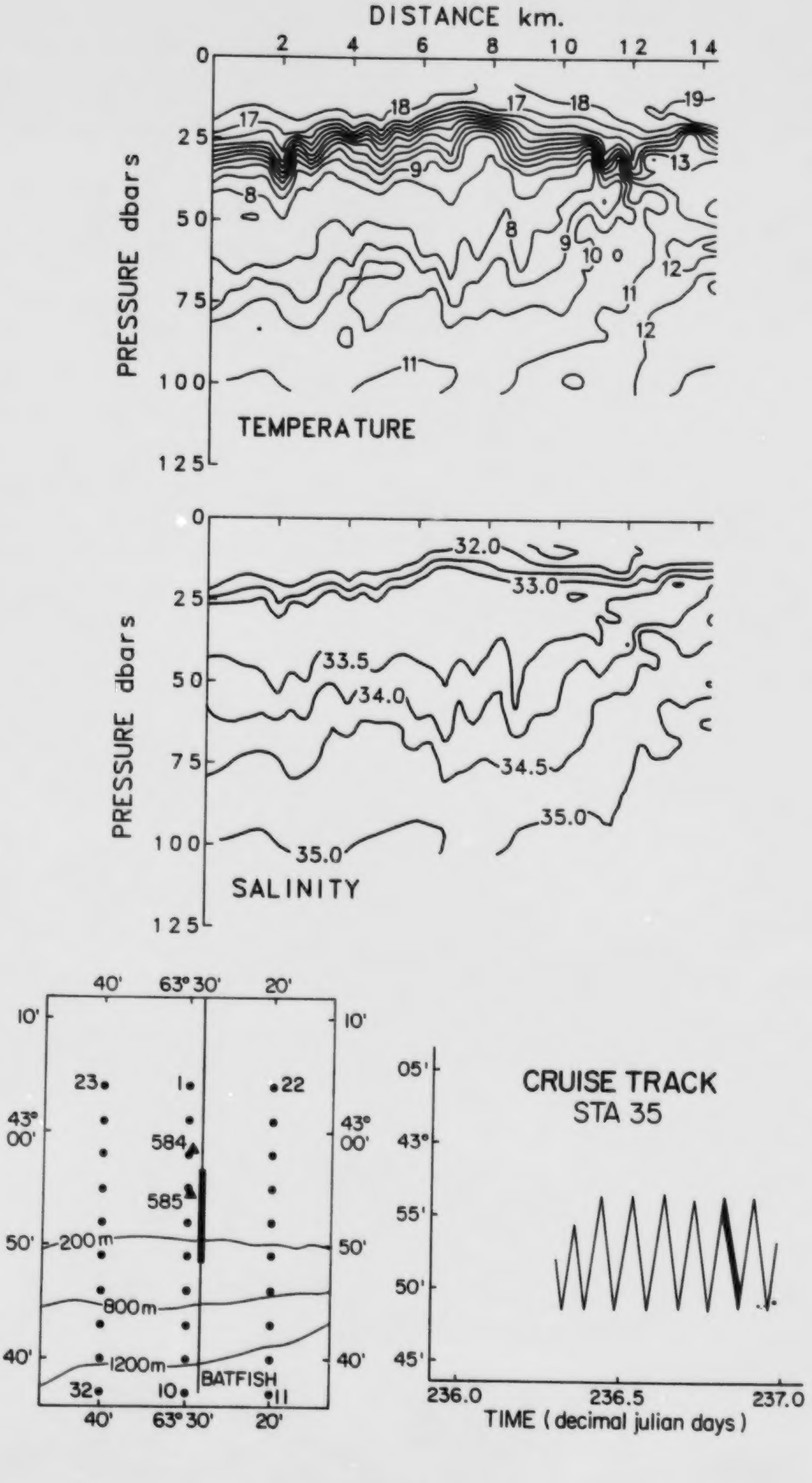

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
17
18
17
18
19
13
9
8
8
9
10
11
12
12
11
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
33.0
33.5
34.0
34.5
35.0
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 116

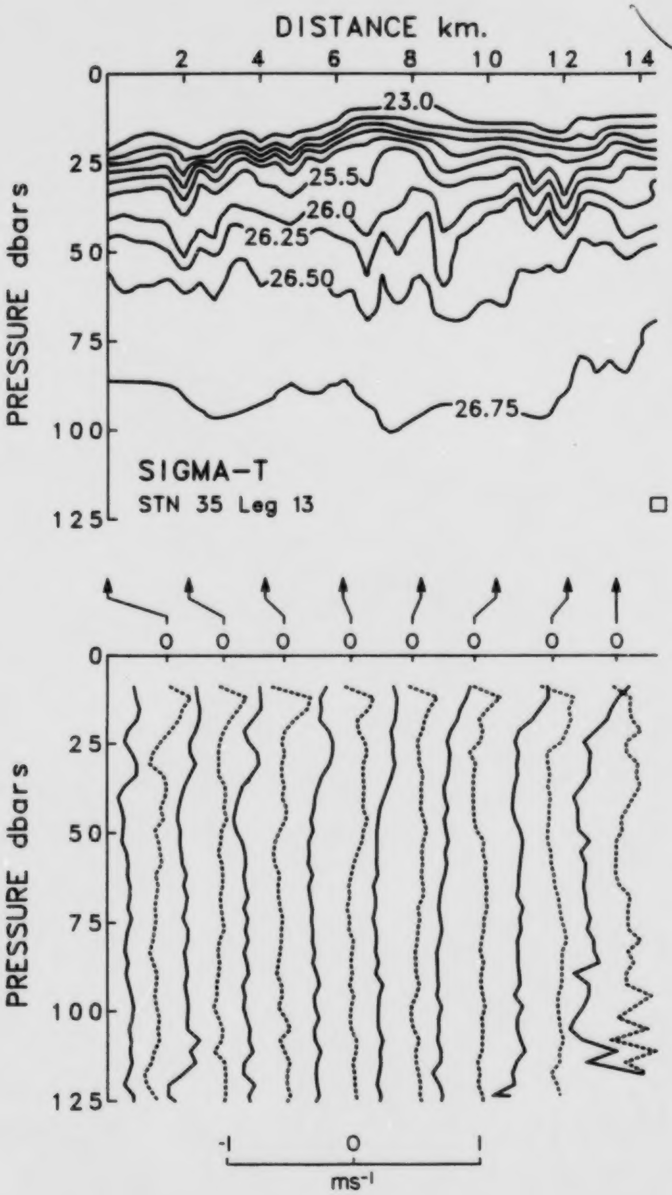

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 13
0
-1
0
1
ms-1

Fig. 117

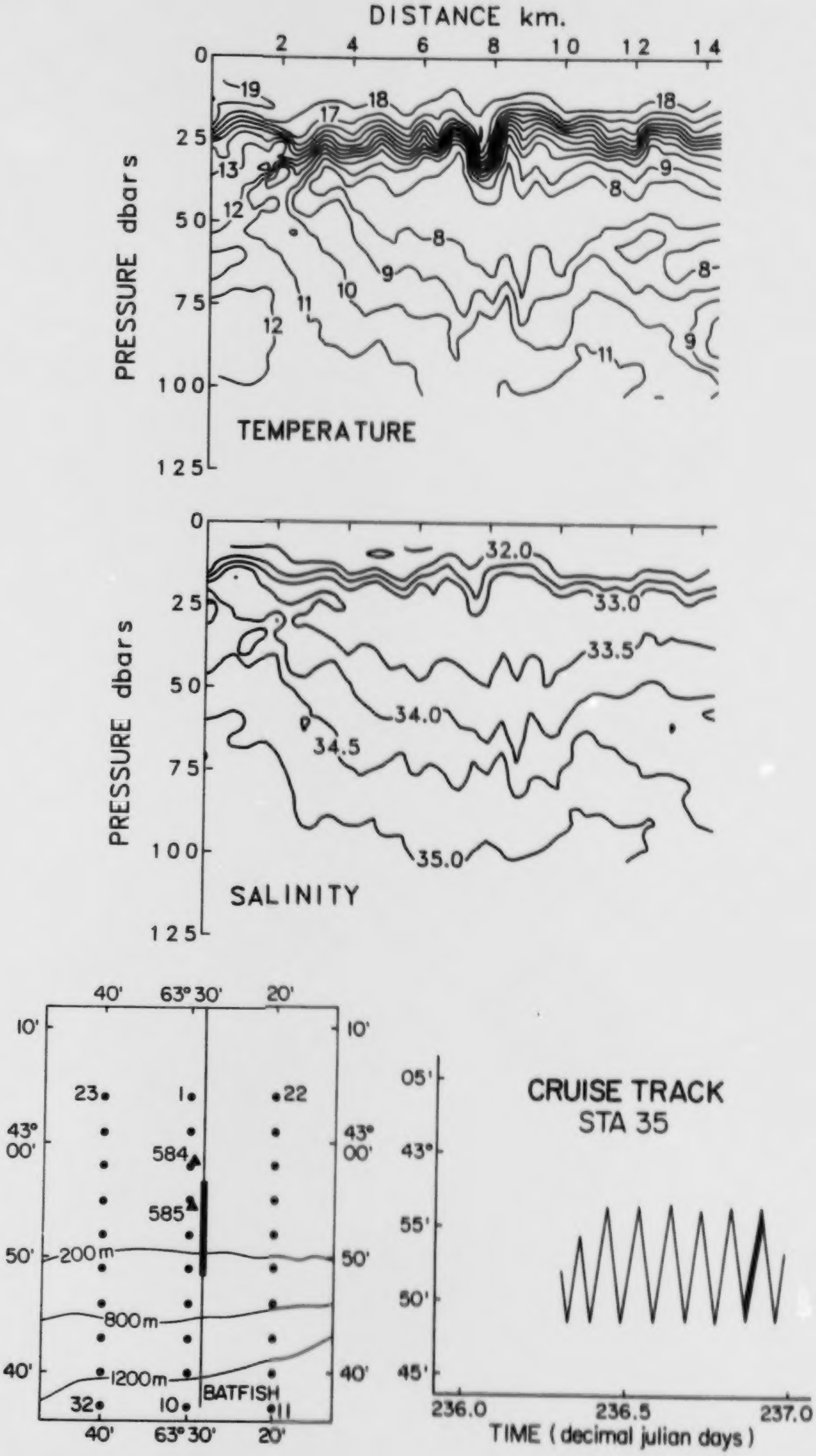

DISTANCE km.
PRESSURE dbars
TEMPERATURE
SALINITY
32.0
33.0
33.5
34.0
34.5
35.0
CRUISE TRACK
STA 35
TIME (decimal julian days)
200m
800m
1200m
BATFISH
584
585
63° 30'
40'
20'
43° 00'

Fig. 118

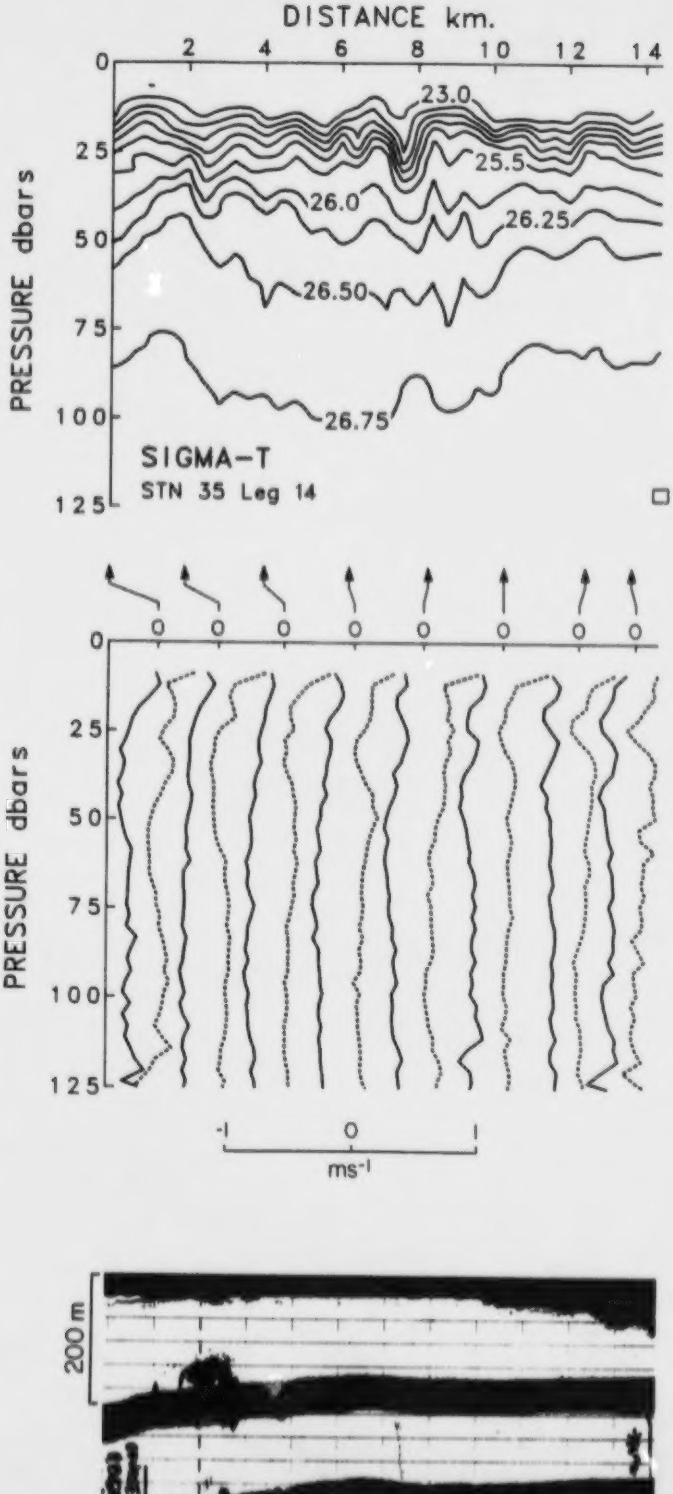

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 14
PRESSURE dbars
0
25
50
75
100
125
-1
0
1
ms-1
200 m

Fig. 119

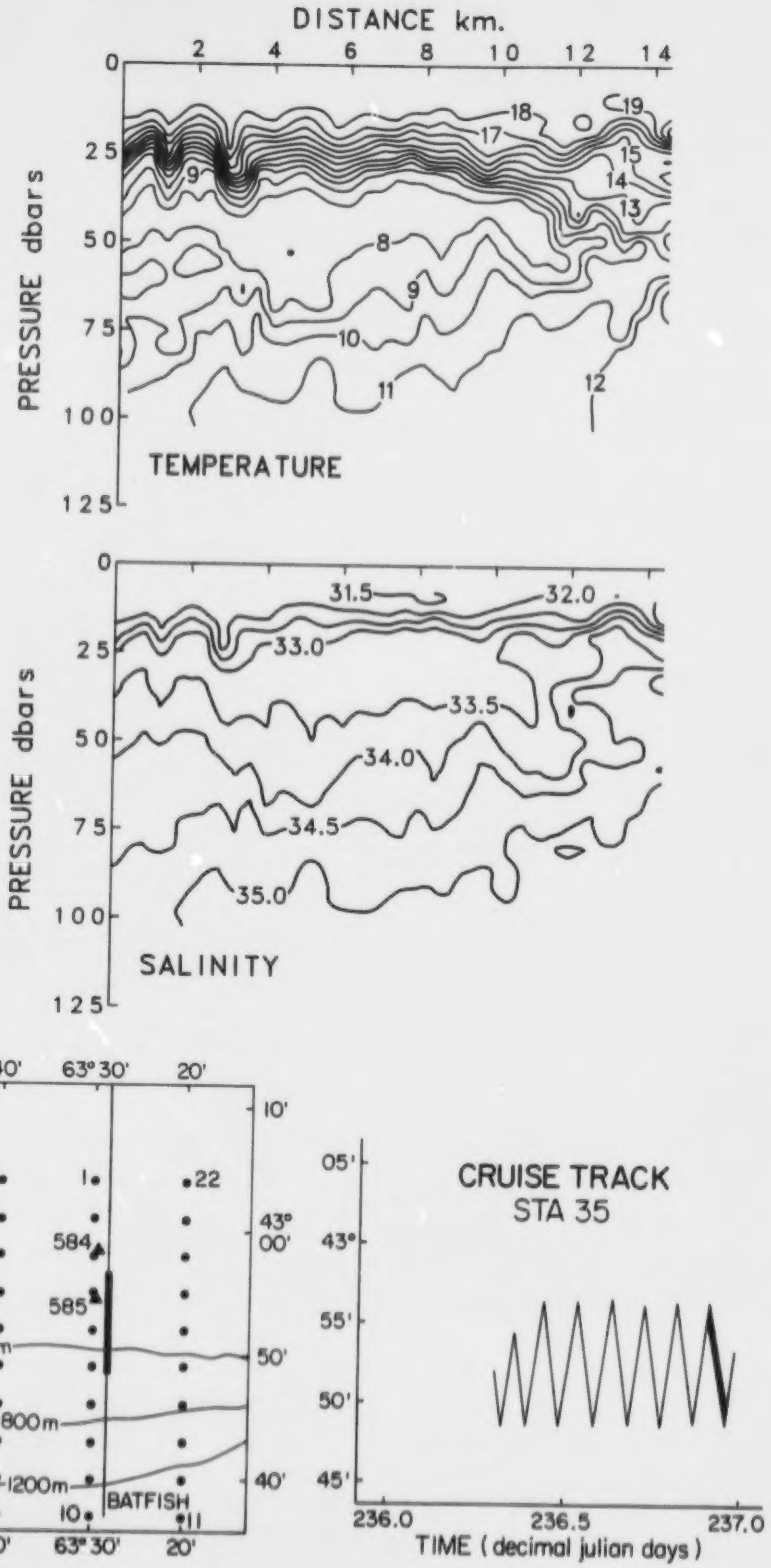

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
18
19
17
15
14
13
9
8
9
10
11
12
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
23
1
22
43° 00'
584
585
50'
200m
800m
1200m
40'
32
10
11
BATFISH
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 120

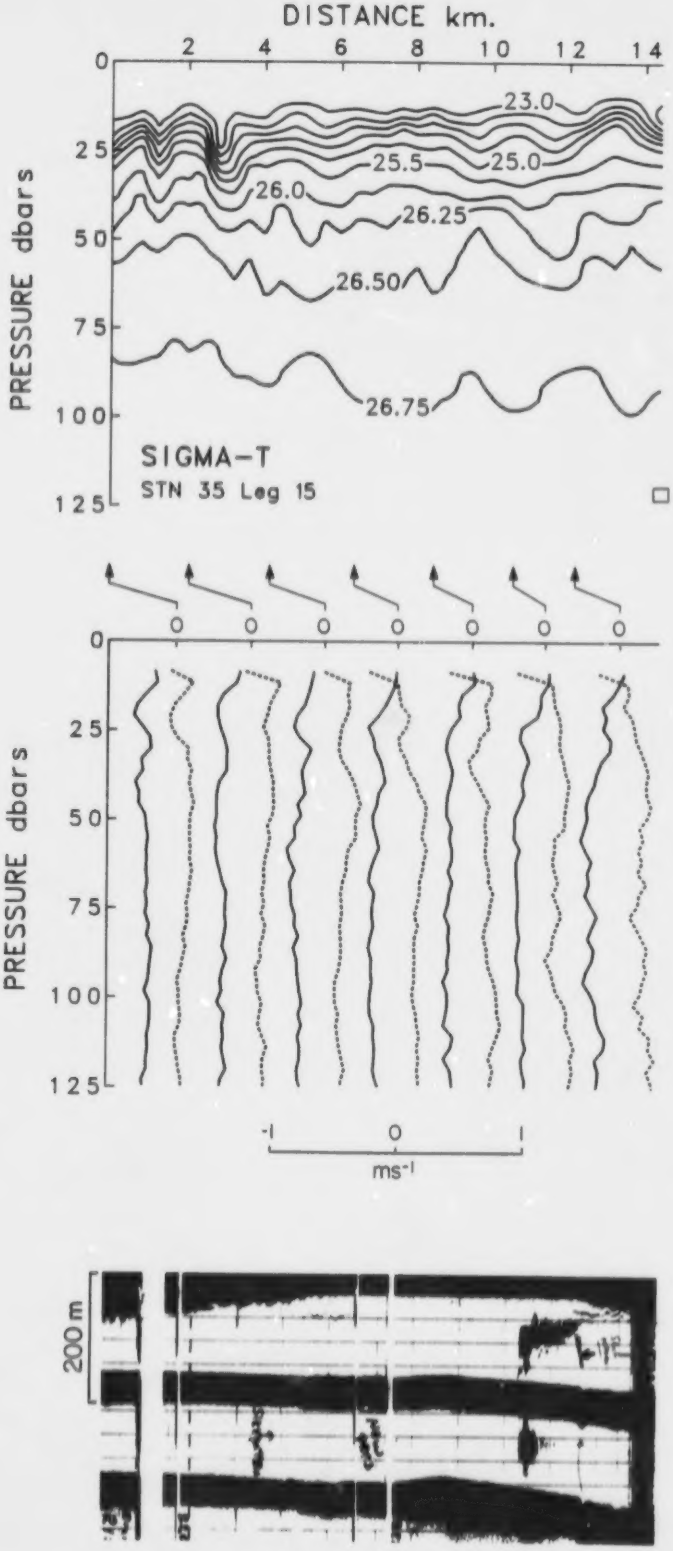

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
23.0
25.5
25.0
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 15
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 121

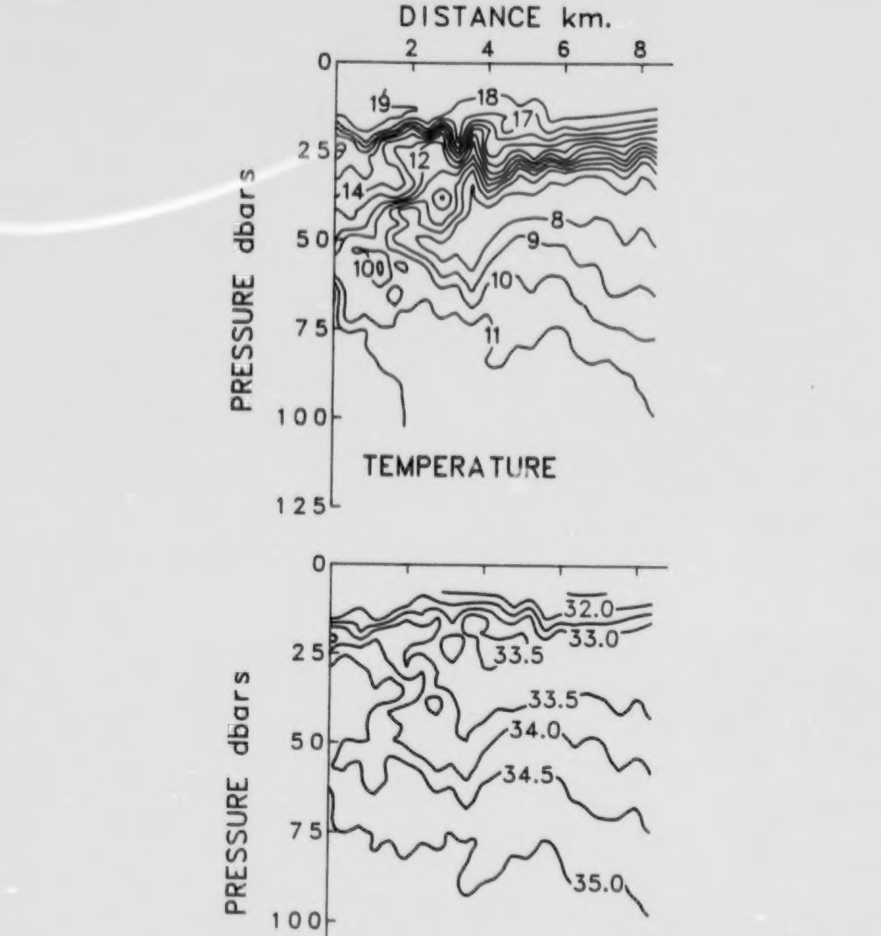

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
19
18
17
12
14
8
9
10
10
11
TEMPERATURE
32.0
33.0
33.5
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 35
05'
43°
55'
50'
45'
236.0
236.5
237.0
TIME (decimal julian days)

Fig. 122

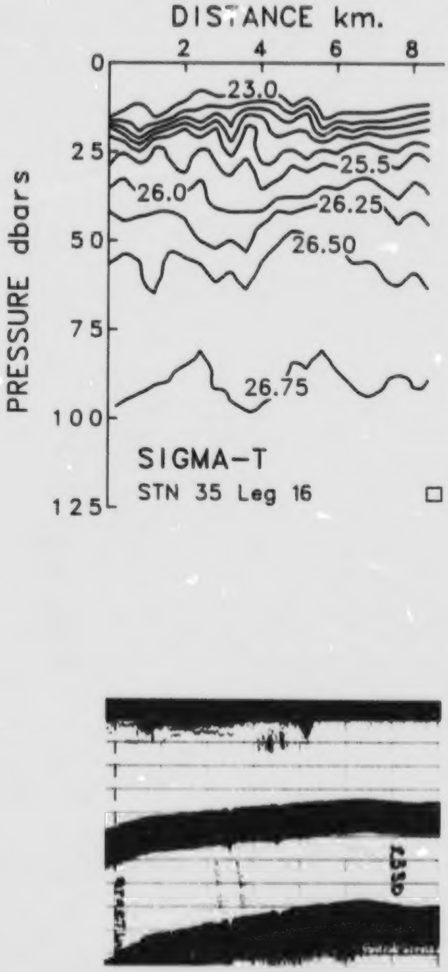

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 35 Leg 16
□

Fig. 123

Figures 124-155

BATFISH station 36; 16 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

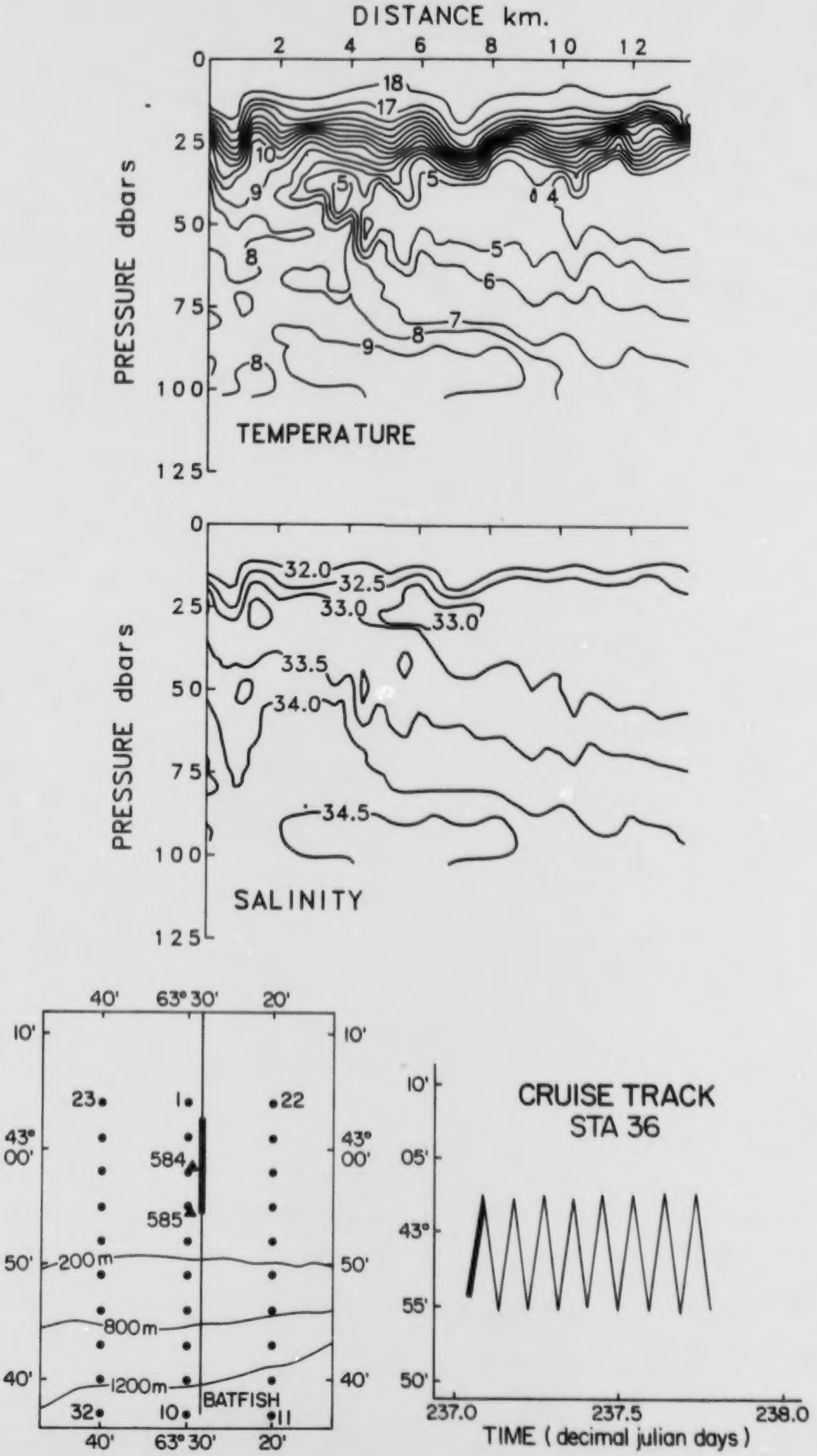

DISTANCE km.
2
4
6
8
10
12
PRESSURE dbars
0
25
50
75
100
125
18
17
10
9
8
5
4
6
7
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
05'
43°
55'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 124

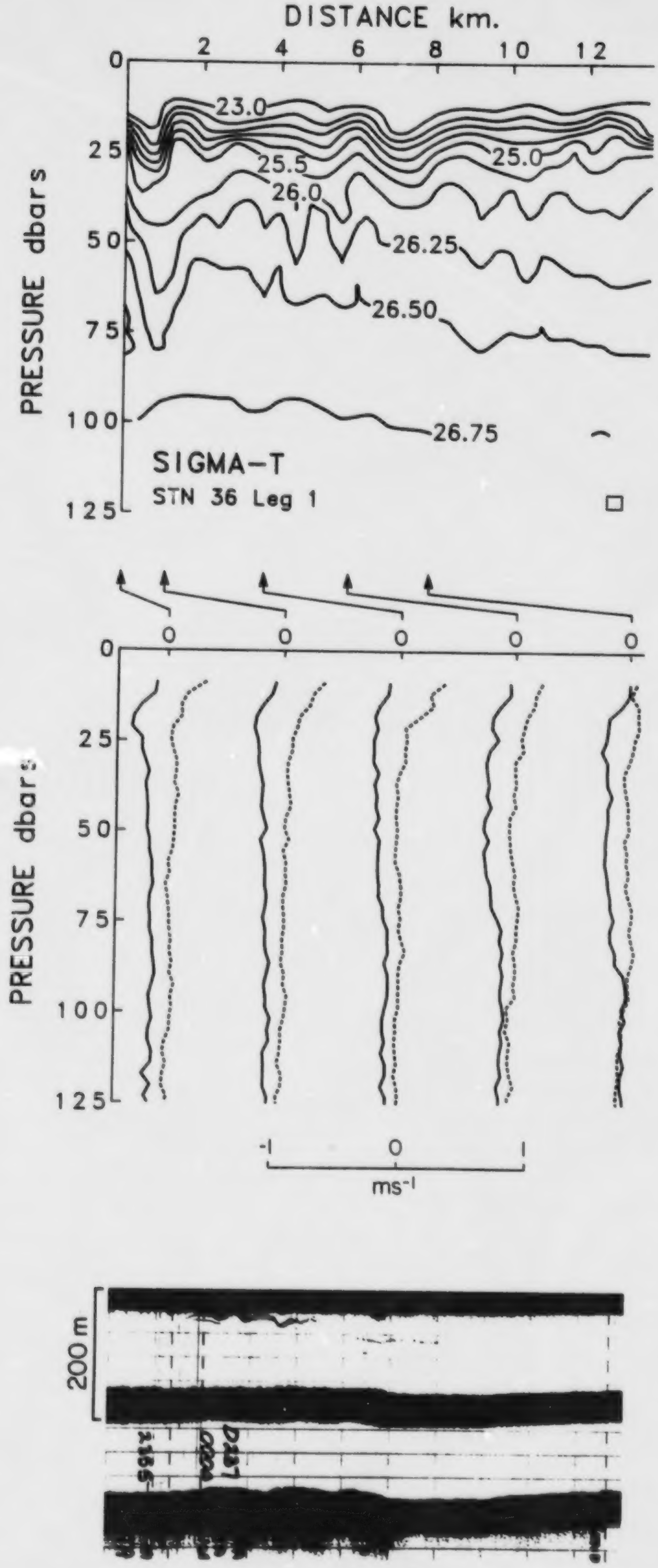

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
25
50
75
100
125
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 1
0
PRESSURE dbars
25
50
75
100
125
-1
0
1
ms-1
200 m
2155
0000
D237

Fig. 125

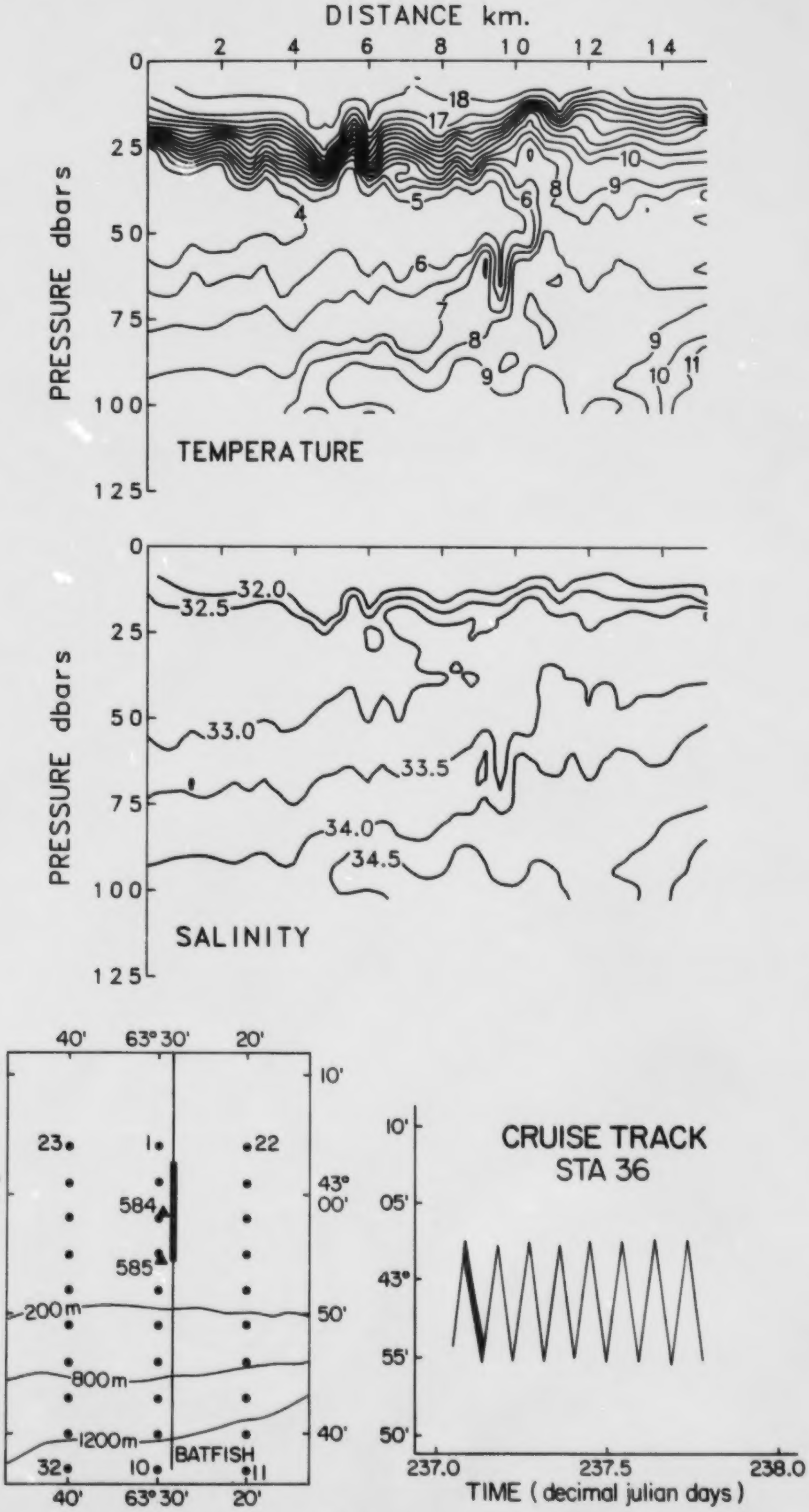

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
10
9
8
6
5
4
6
7
8
9
9
10
11
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
05'
55'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 126

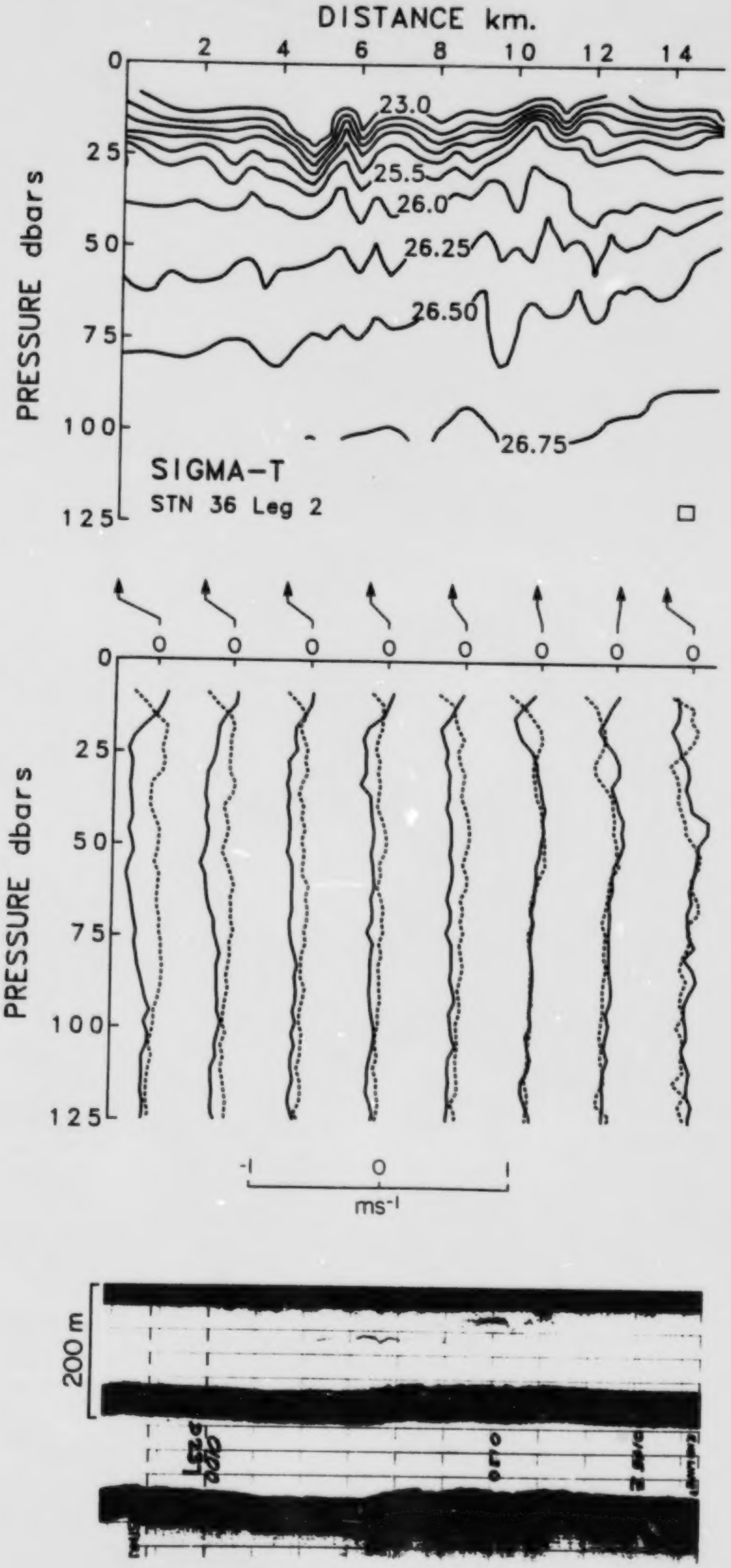

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 2
0
-1
1
ms-1
200 m

Fig. 127

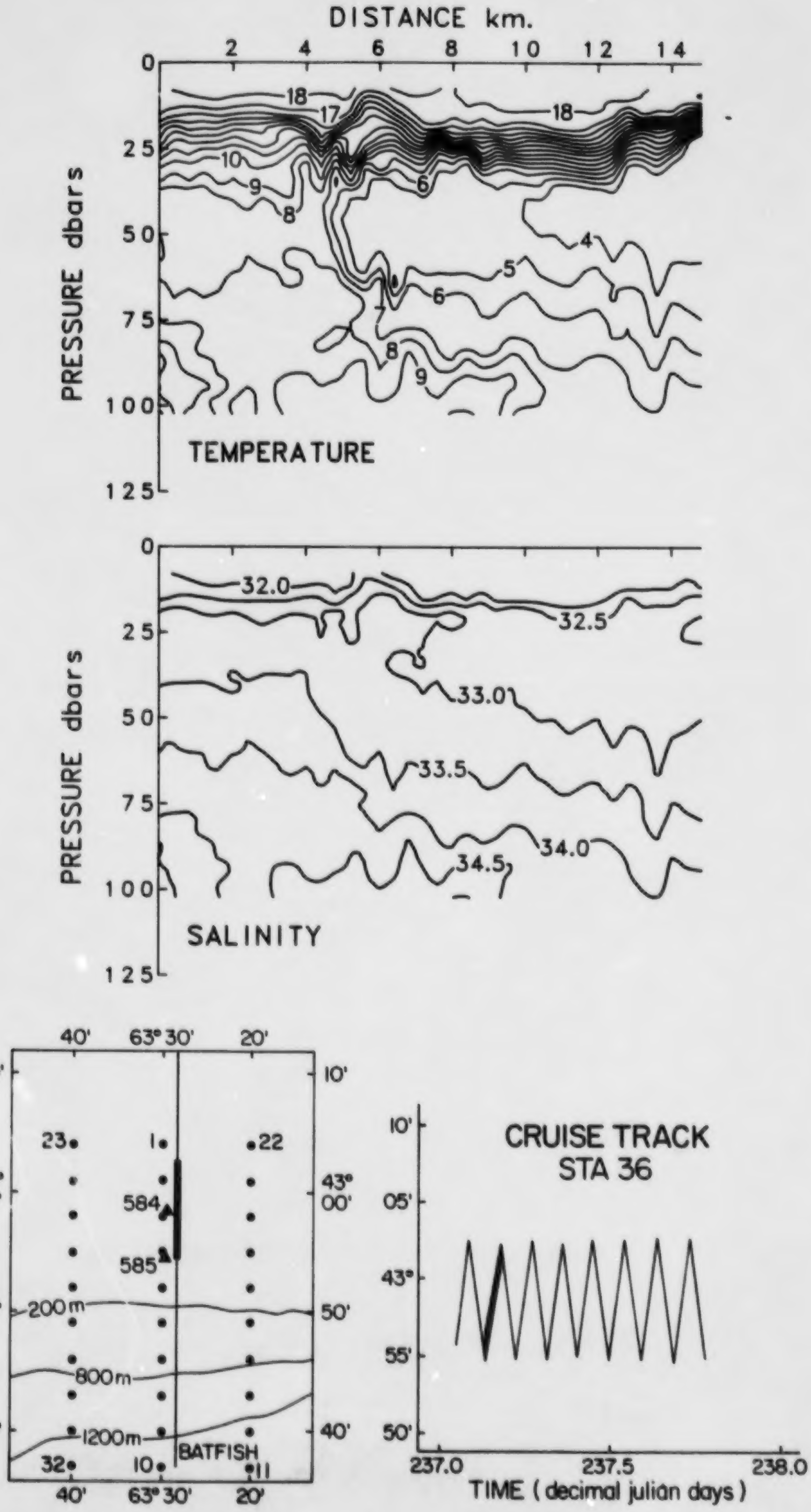

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
10
9
8
6
18
4
5
6
7
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 128

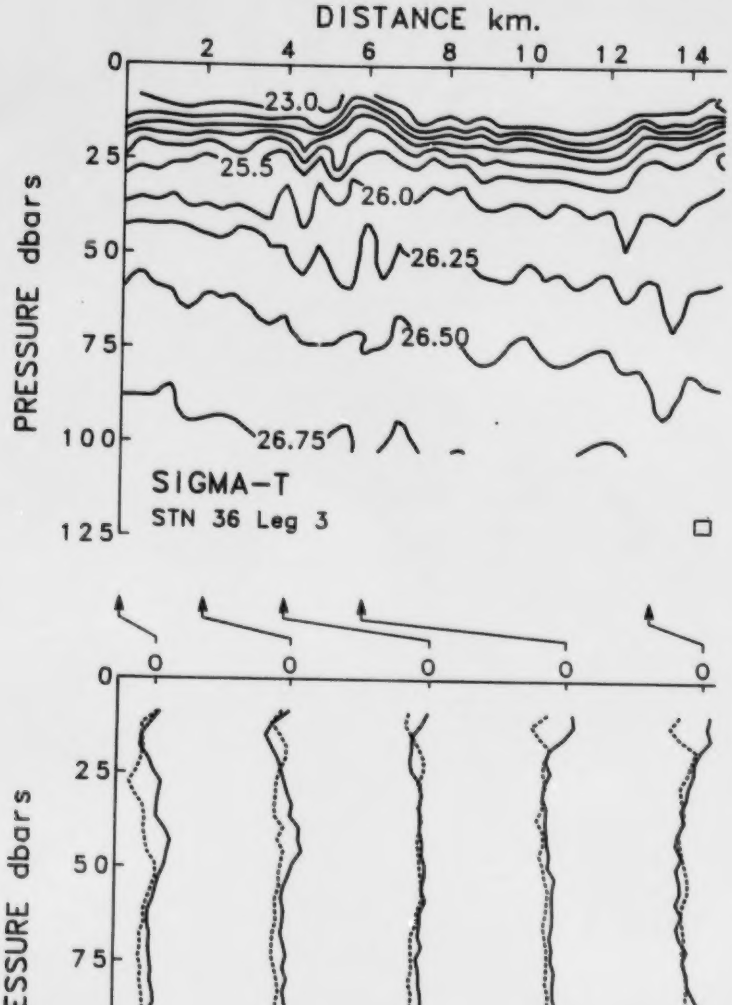

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 3
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 129

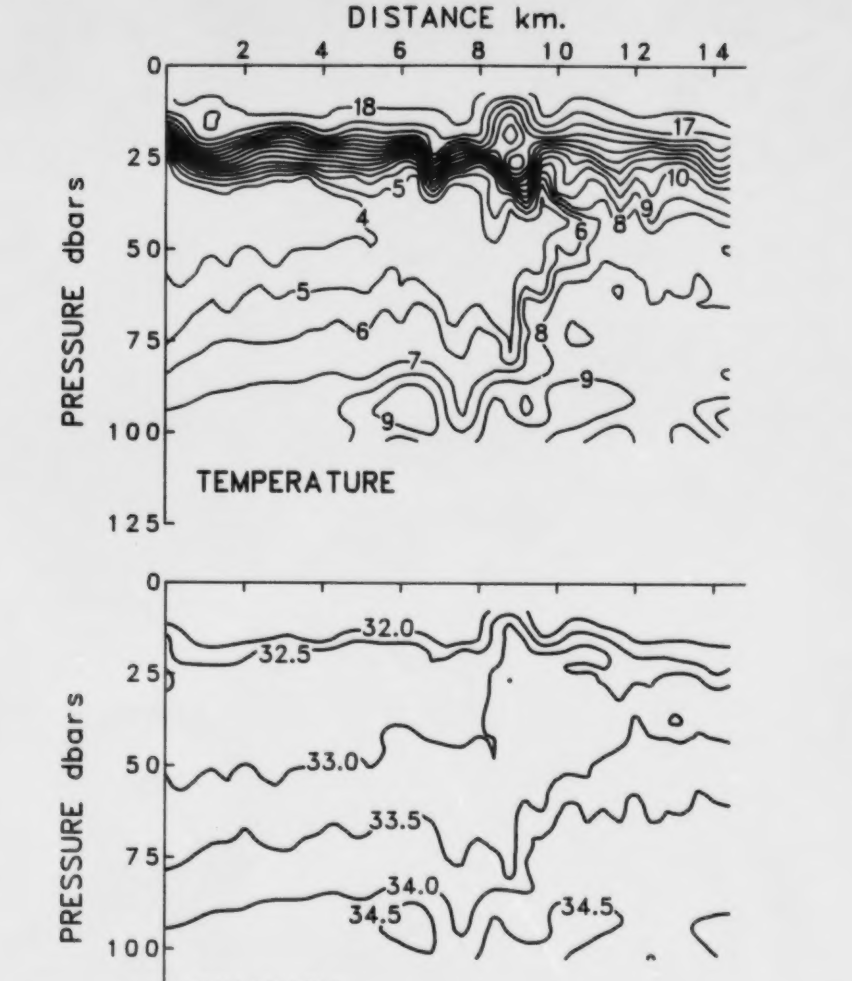

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
18
17
10
9
8
6
5
4
5
6
7
8
9
9
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
32.0
32.5
33.0
33.5
34.0
34.5
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 130

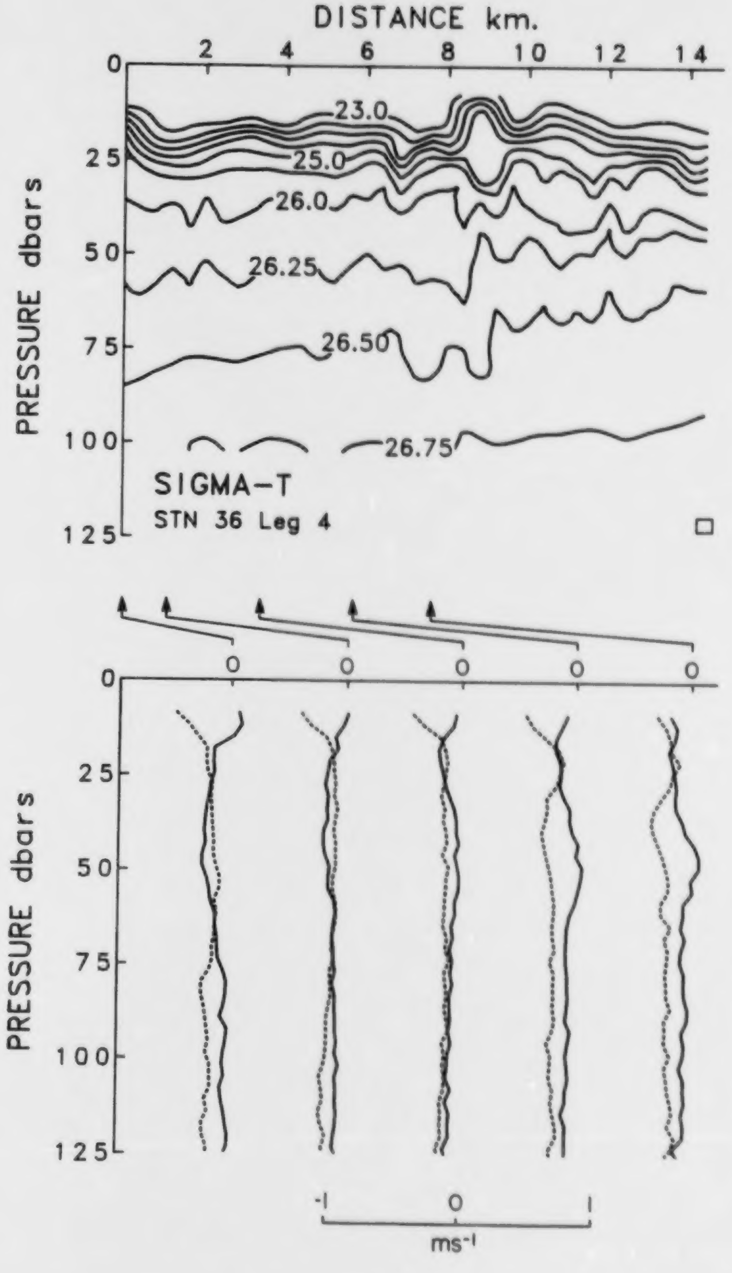

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 4
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 131

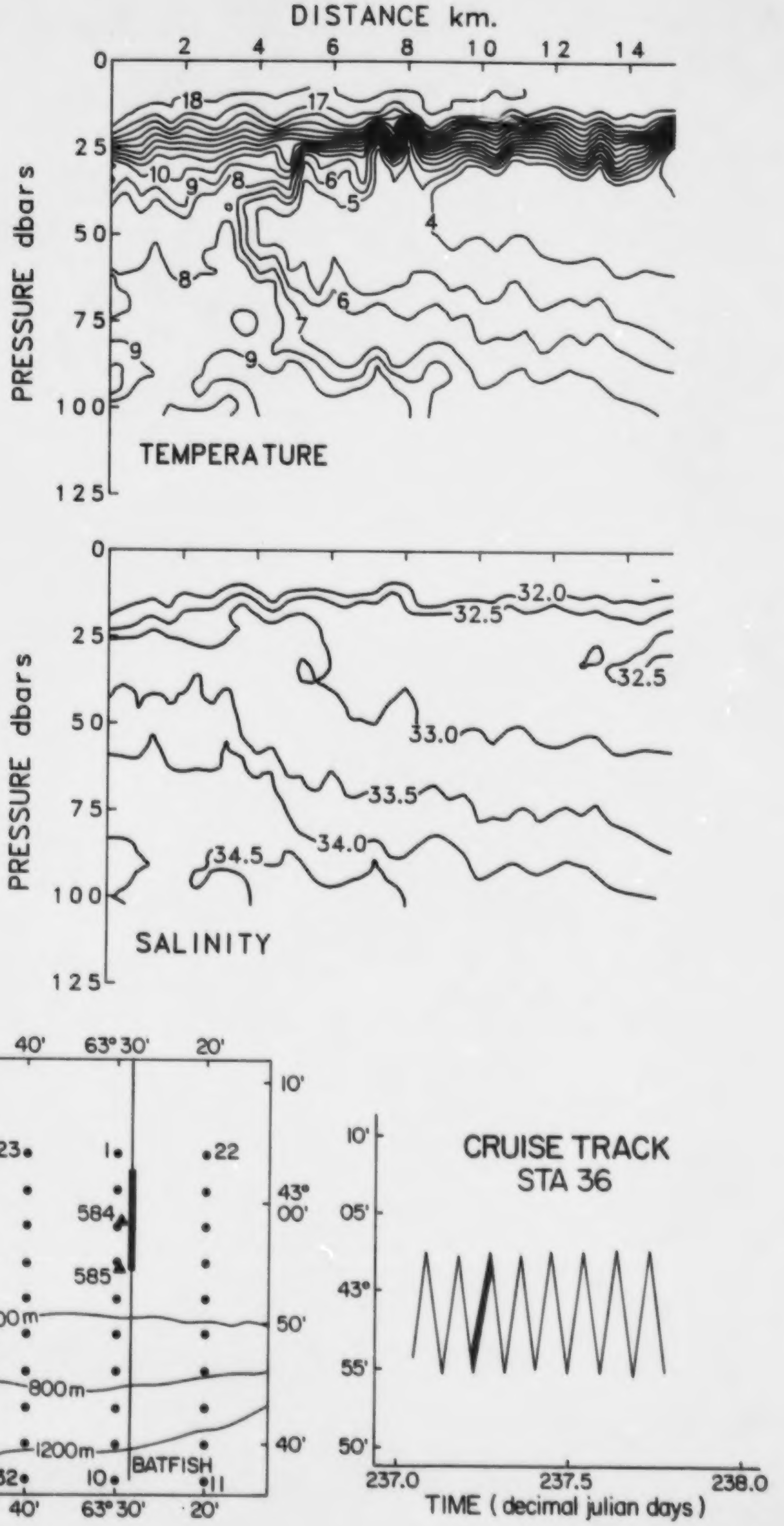

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
10
9
8
6
5
4
8
6
7
9
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 132

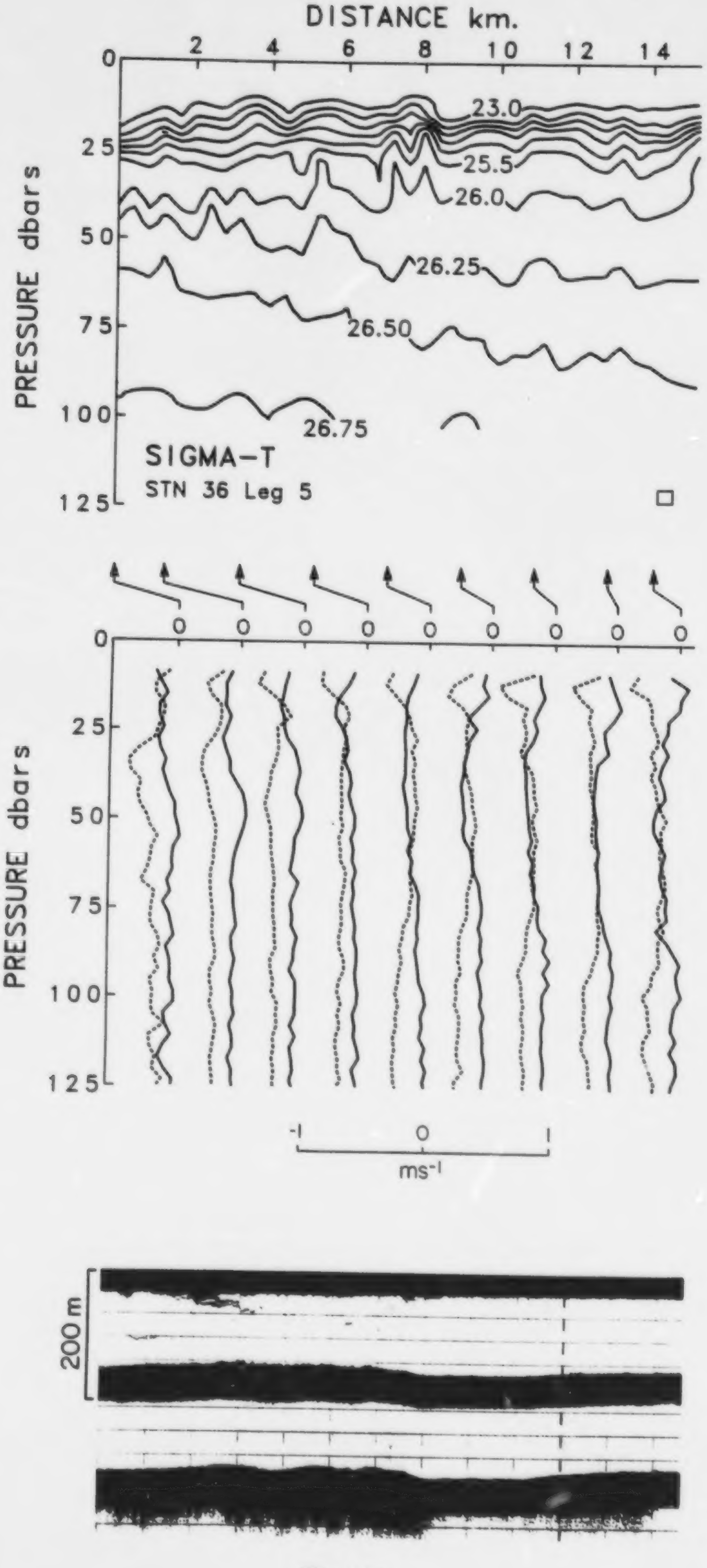

DISTANCE km.
0
2
4
6
8
10
12
14
23.0
25.5
26.0
26.25
26.50
26.75
PRESSURE dbars
25
50
75
100
125
SIGMA-T
STN 36 Leg 5
0
PRESSURE dbars
25
50
75
100
125
-1
0
1
ms-1
200 m

Fig. 133

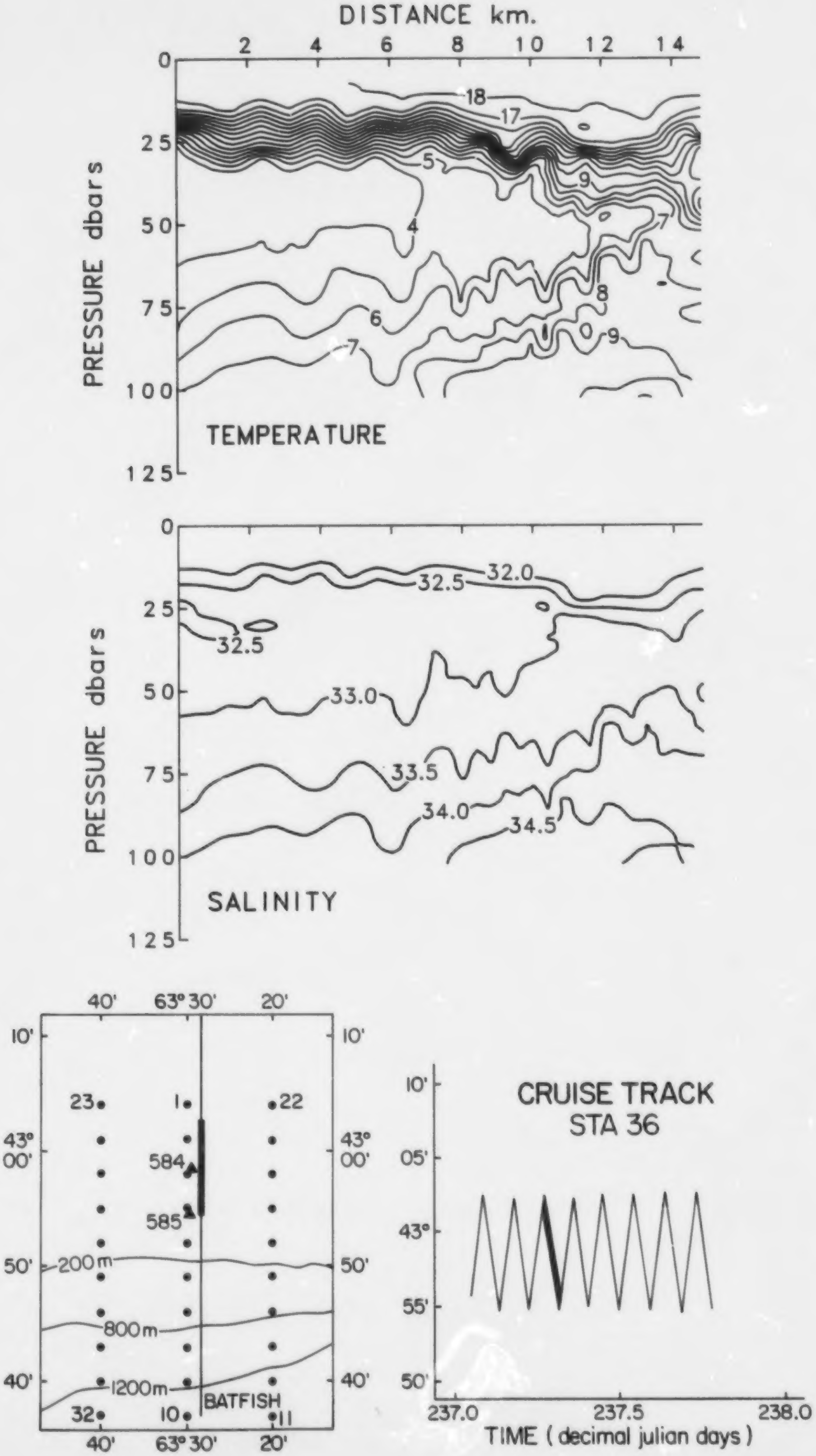

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
18
17
5
9
4
7
8
6
7
9
TEMPERATURE
32.0
32.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 134

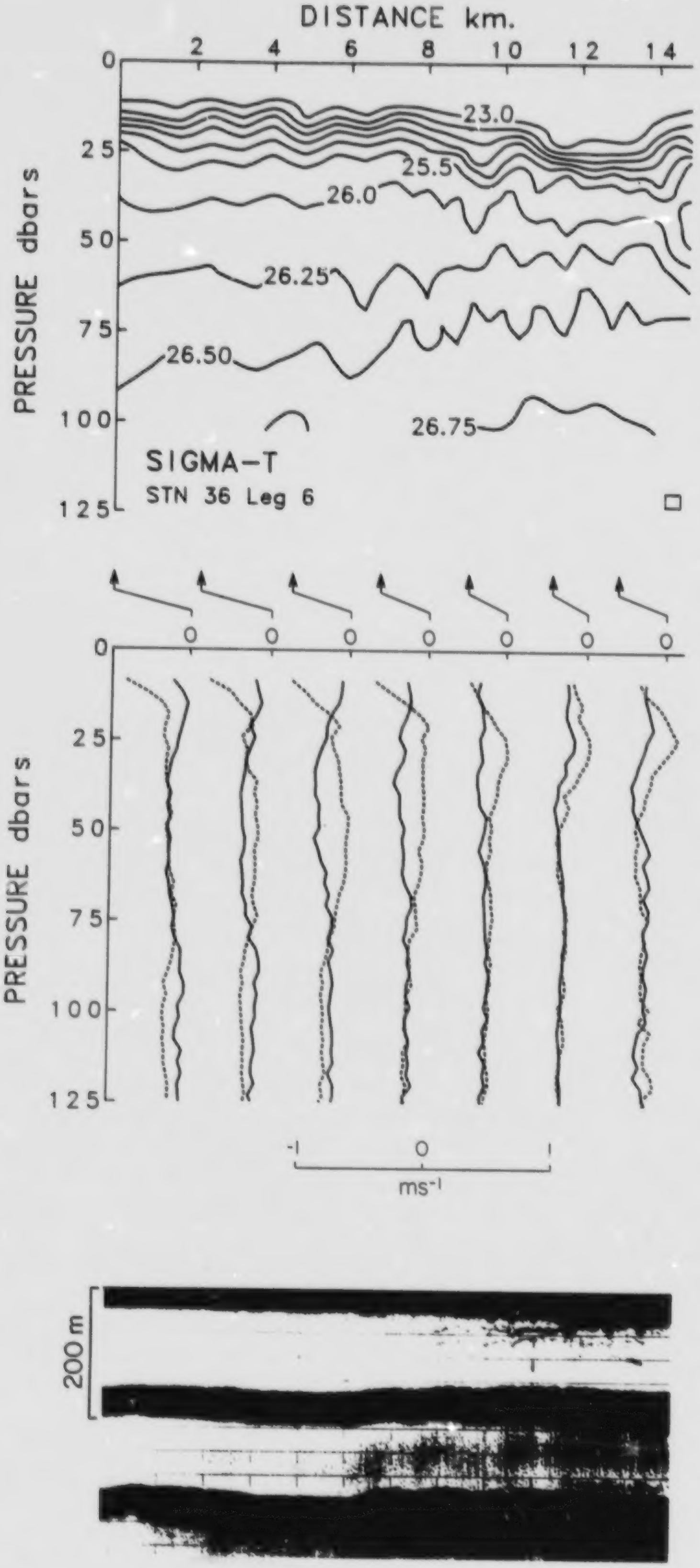

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 6
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 135

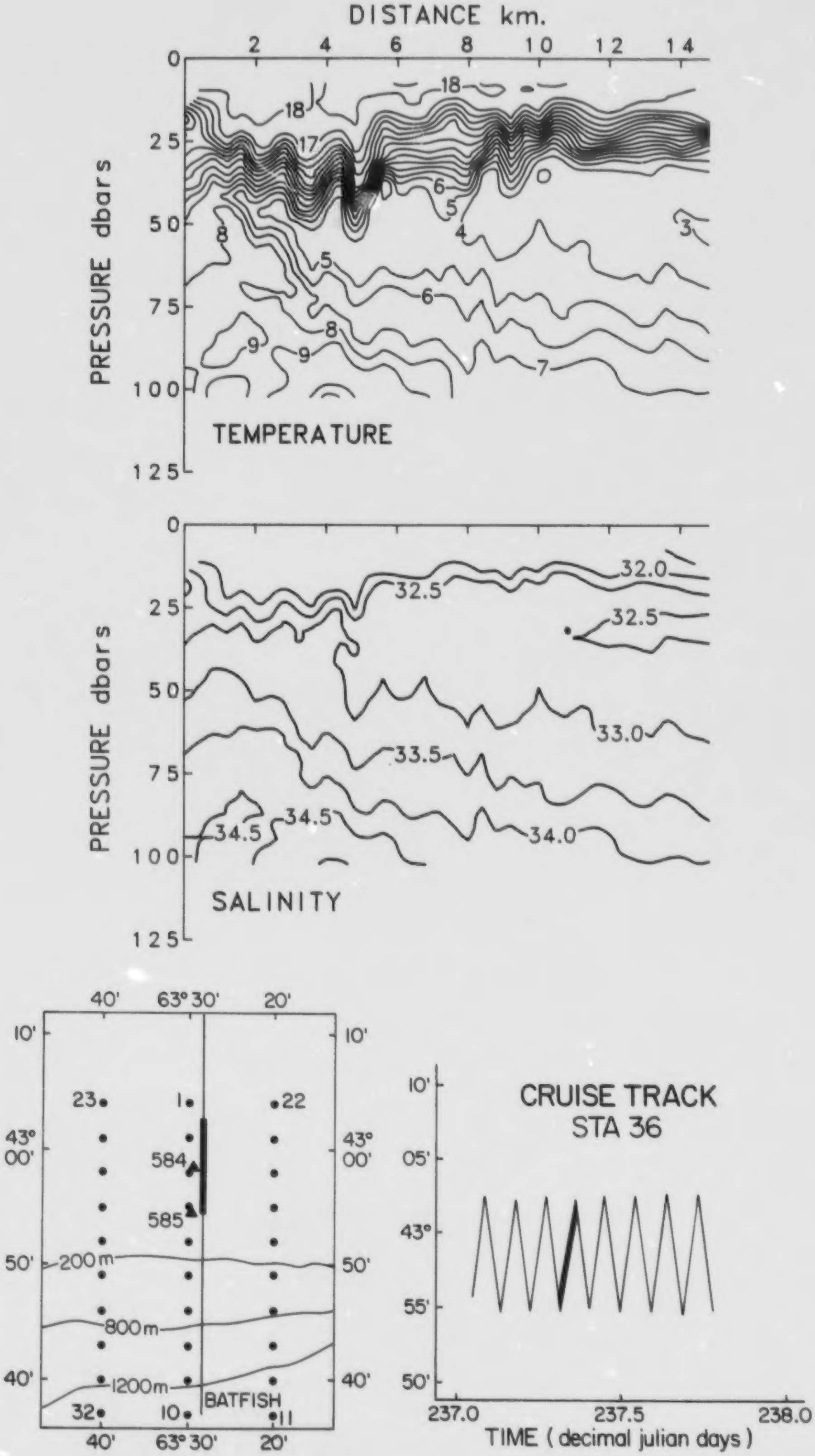

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
6
5
4
3
8
9
7
0
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
05'
43°
55'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 136

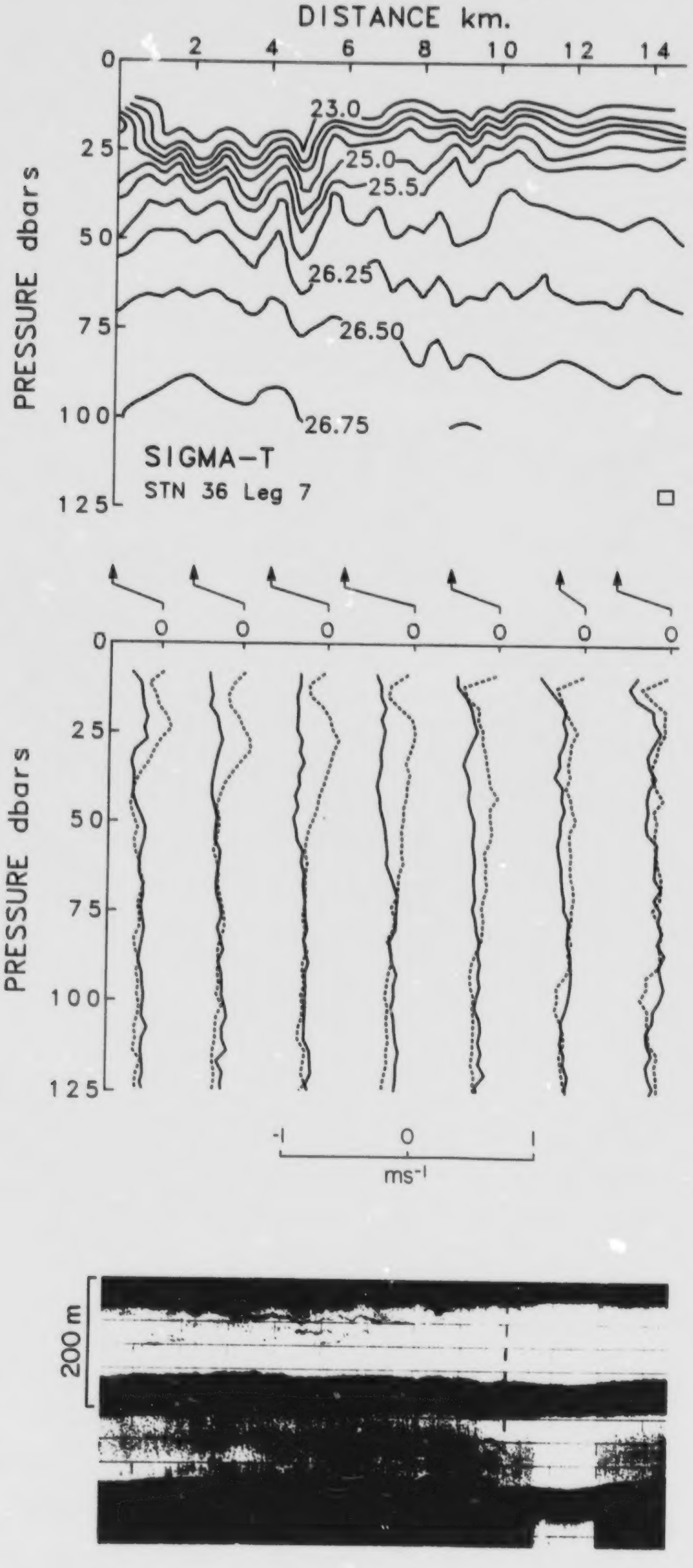

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 7
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 137

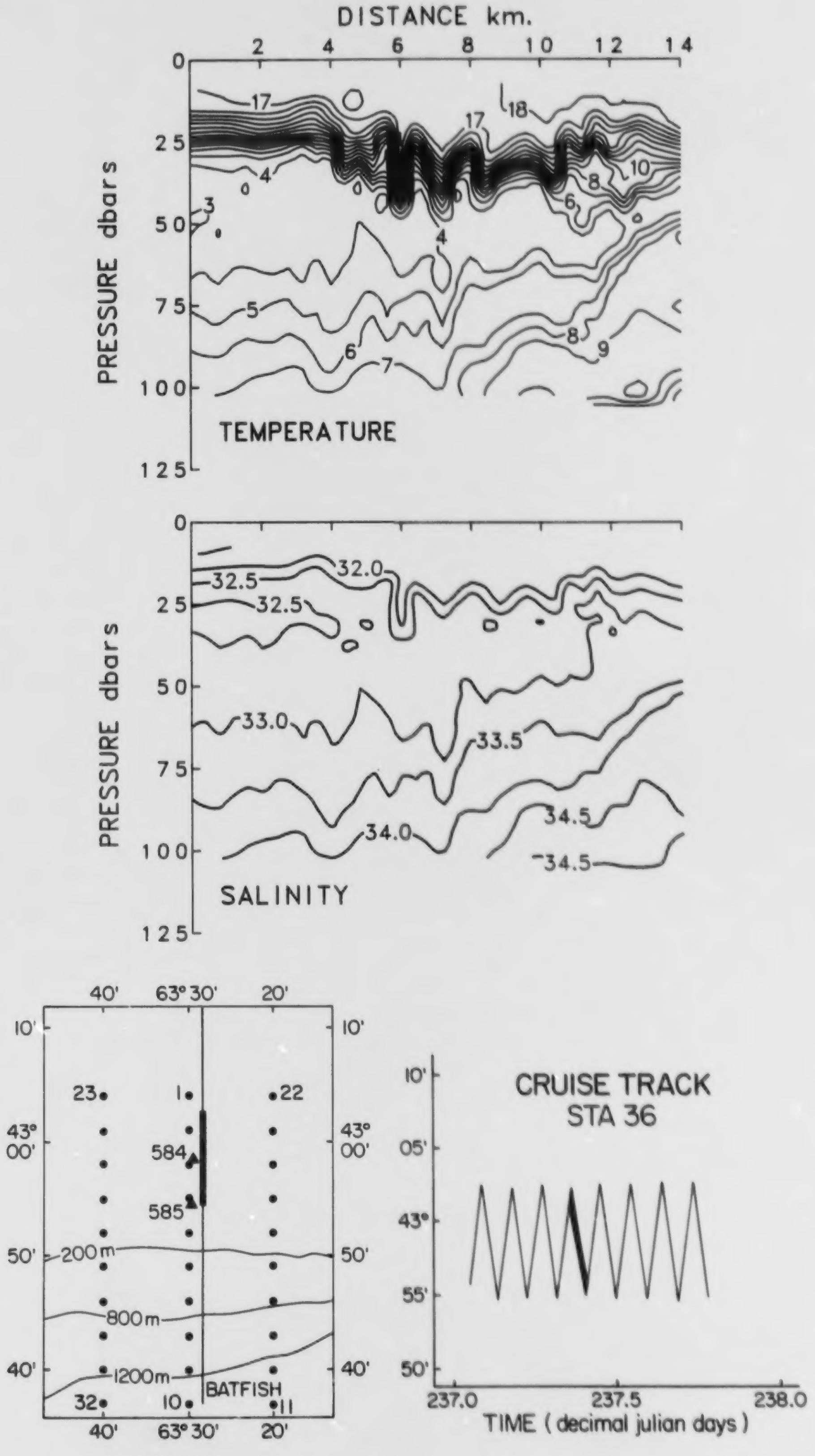

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
17
18
17
10
8
6
4
3
4
5
6
7
8
9
TEMPERATURE
32.5
32.5
32.0
33.0
33.5
34.0
34.5
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 138

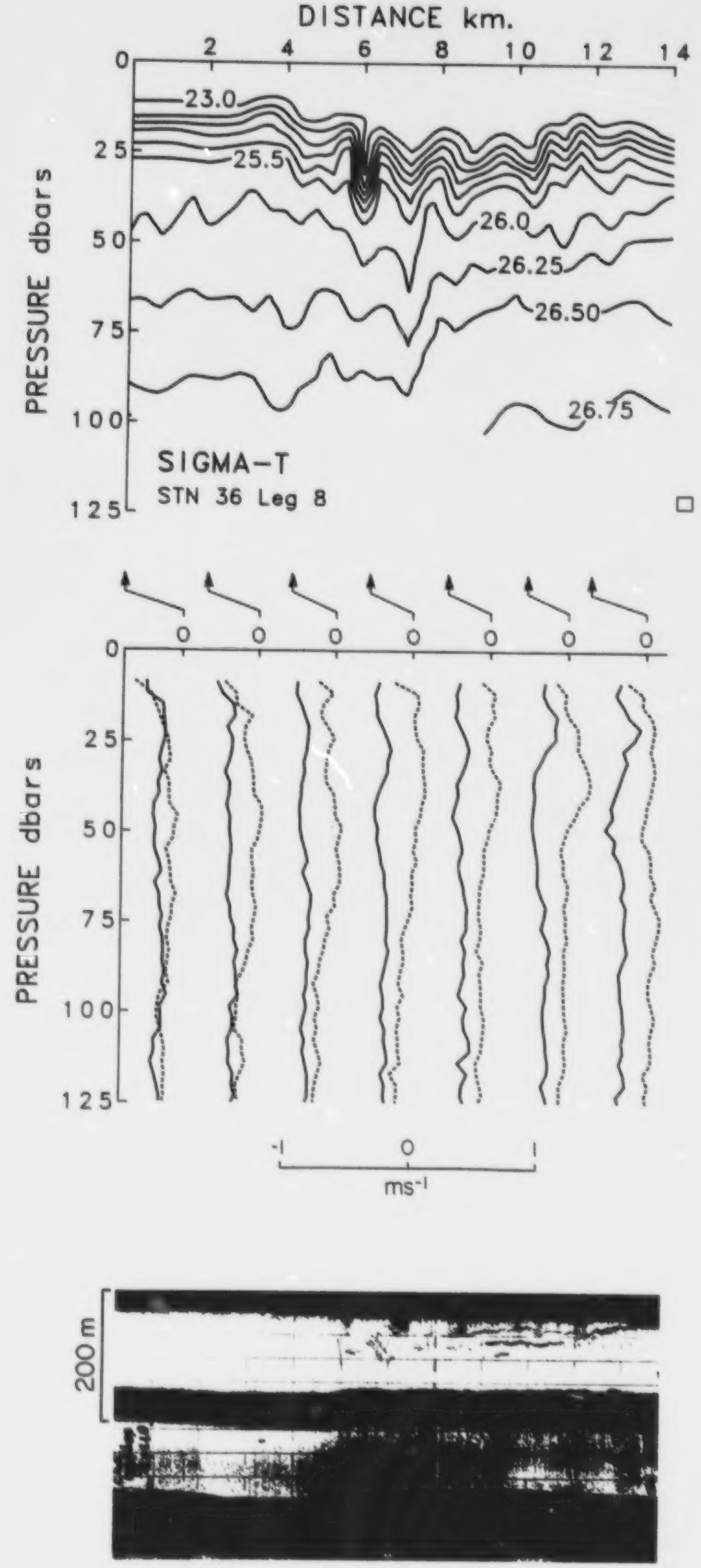

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 8
0
PRESSURE dbars
25
50
75
100
125
-1
0
1
ms-1
200 m

Fig. 139

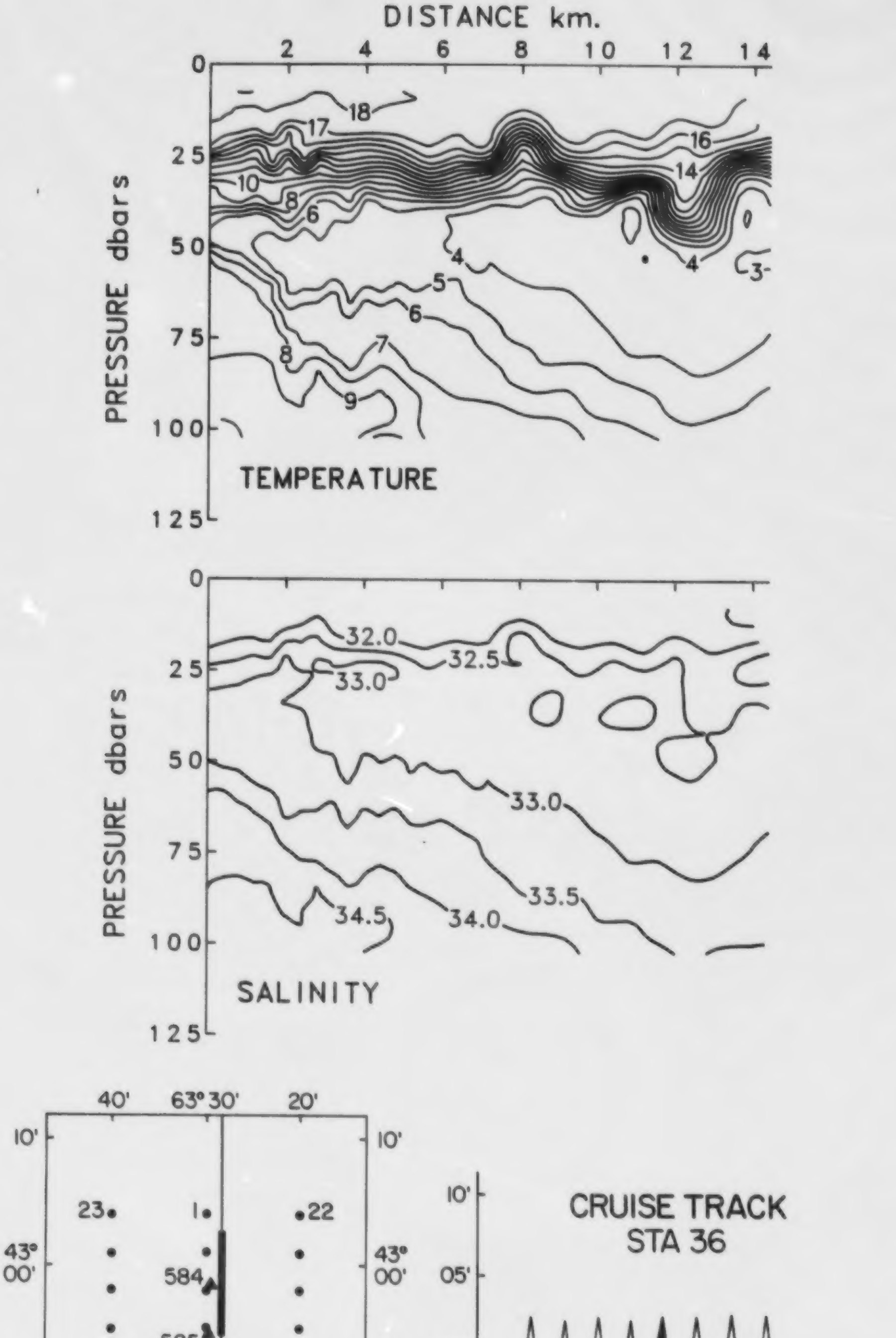

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
16
14
10
8
6
4
4
3
5
6
7
8
9
TEMPERATURE
32.0
32.5
33.0
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
05'
43°
55'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 140

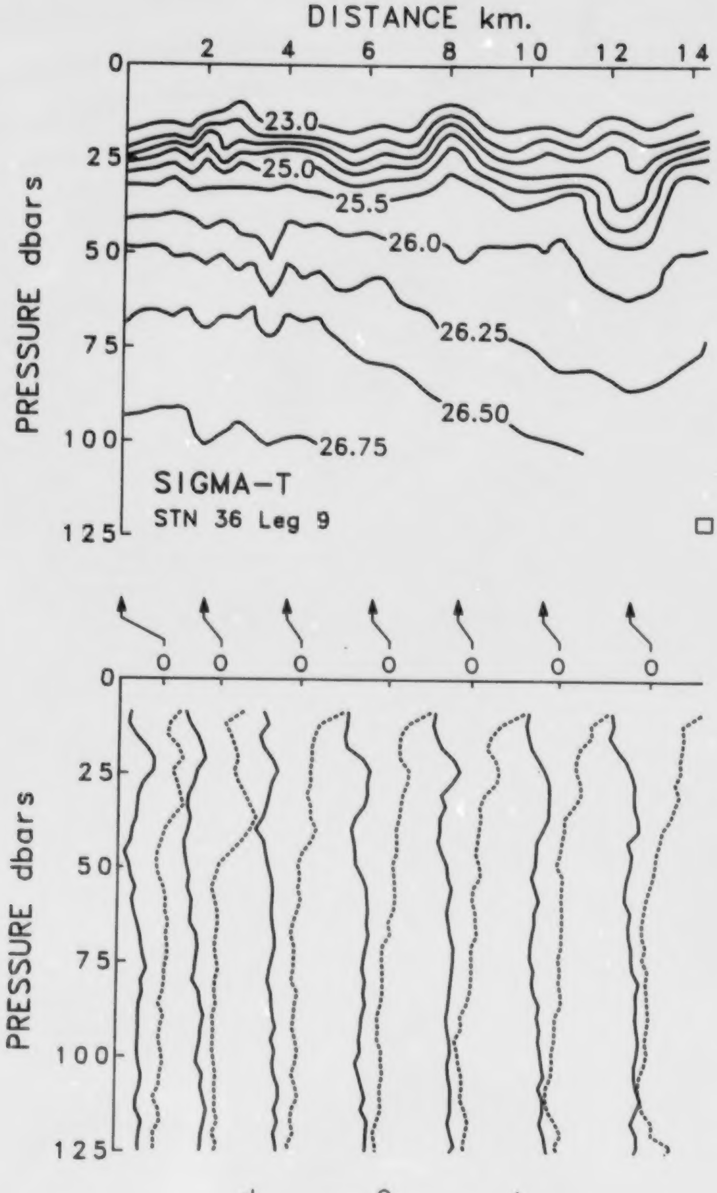

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 9
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 141

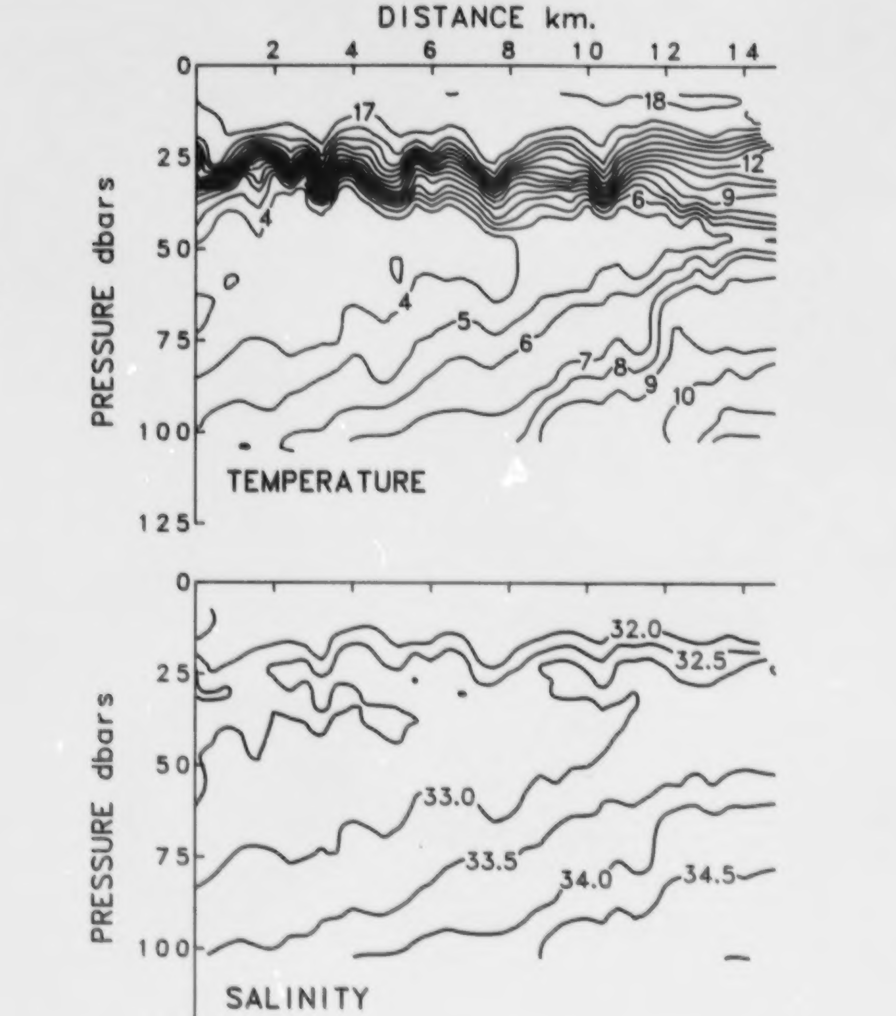

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
17
18
12
9
6
4
4
5
6
7
8
9
10
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 142

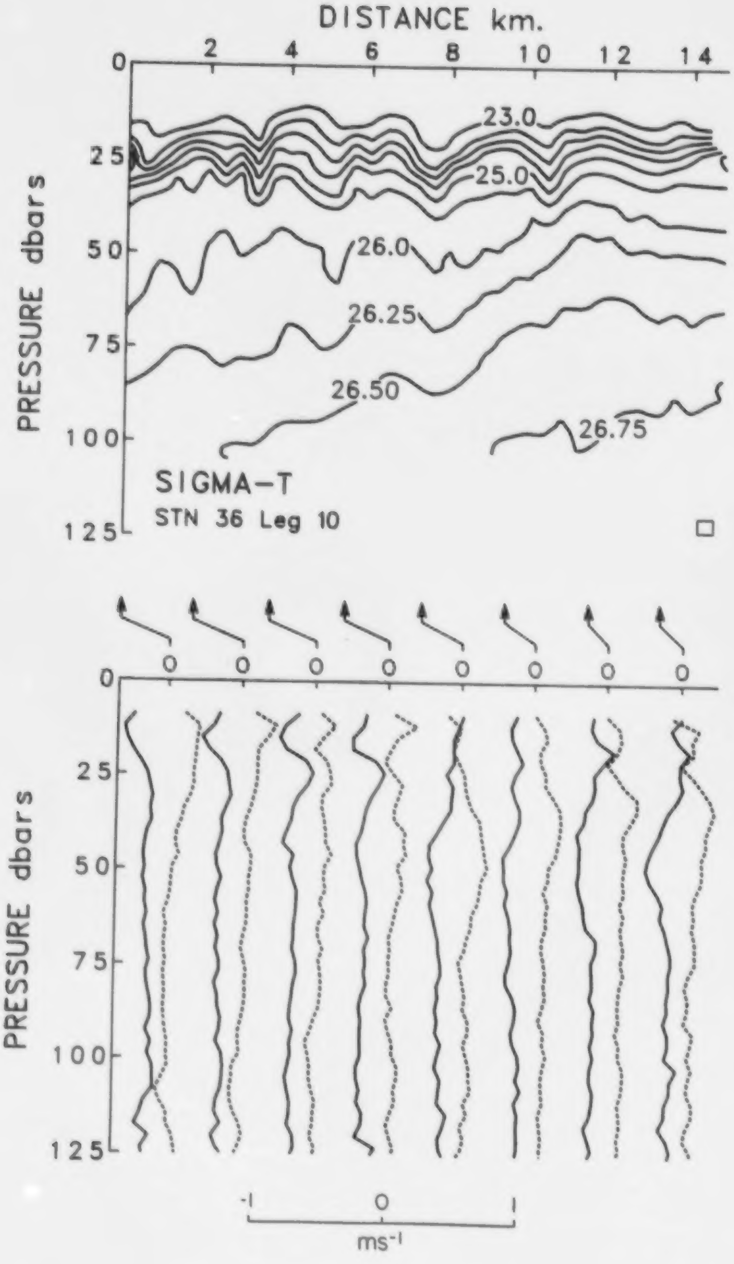

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
23.0
25.0
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 10
☐
0
0
0
0
0
0
0
0
0
PRESSURE dbars
25
50
75
100
125
-1
0
1
ms-1

Fig. 143

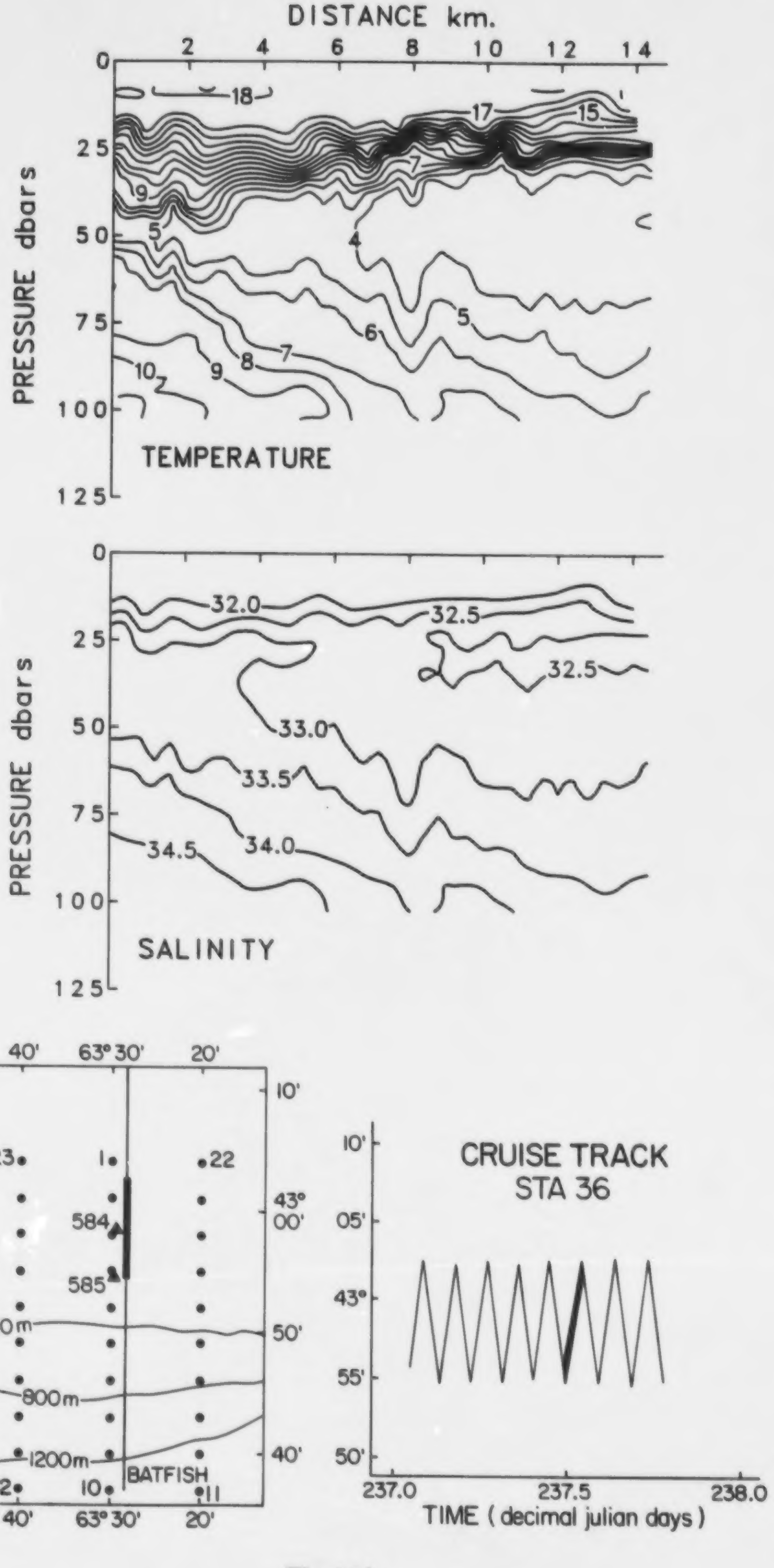

DISTANCE km.
0
2
4
6
8
10
12
14
18
17
15
9
7
5
4
5
6
7
8
9
10
PRESSURE dbars
25
50
75
100
125
TEMPERATURE
0
32.0
32.5
32.5
33.0
33.5
34.0
34.5
PRESSURE dbars
25
50
75
100
125
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 144

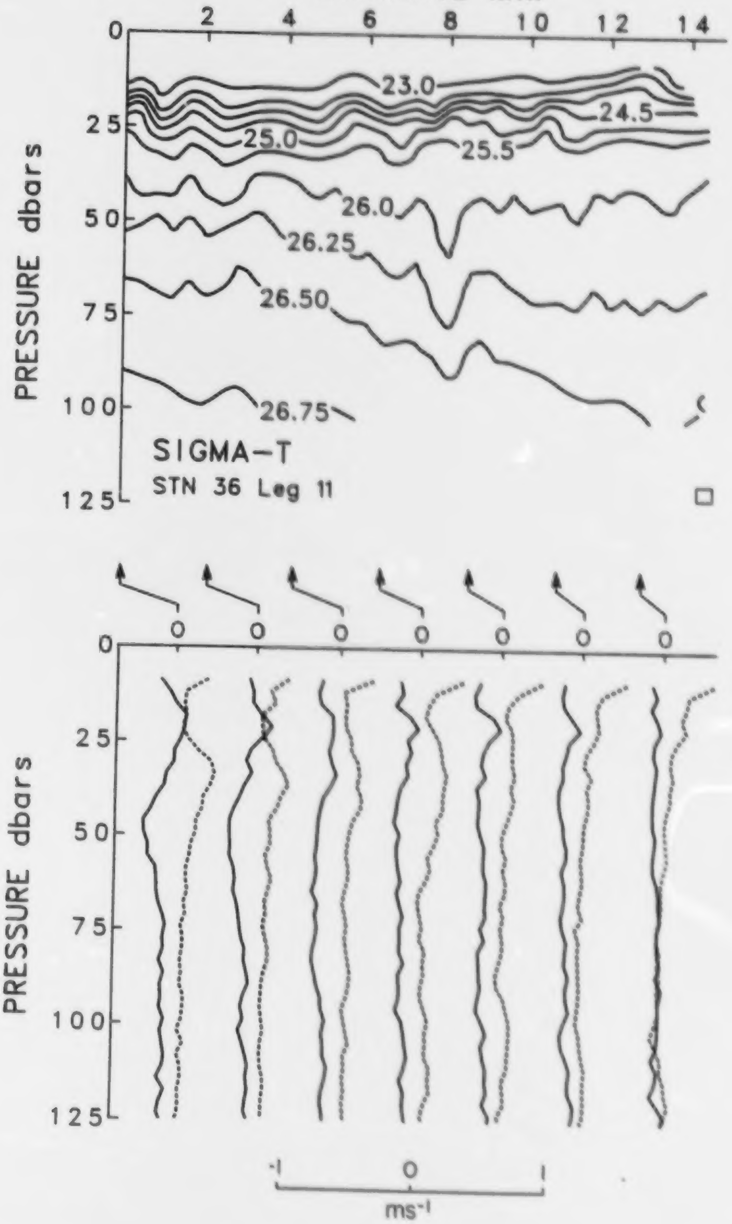

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
24.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 11
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹

Fig. 145

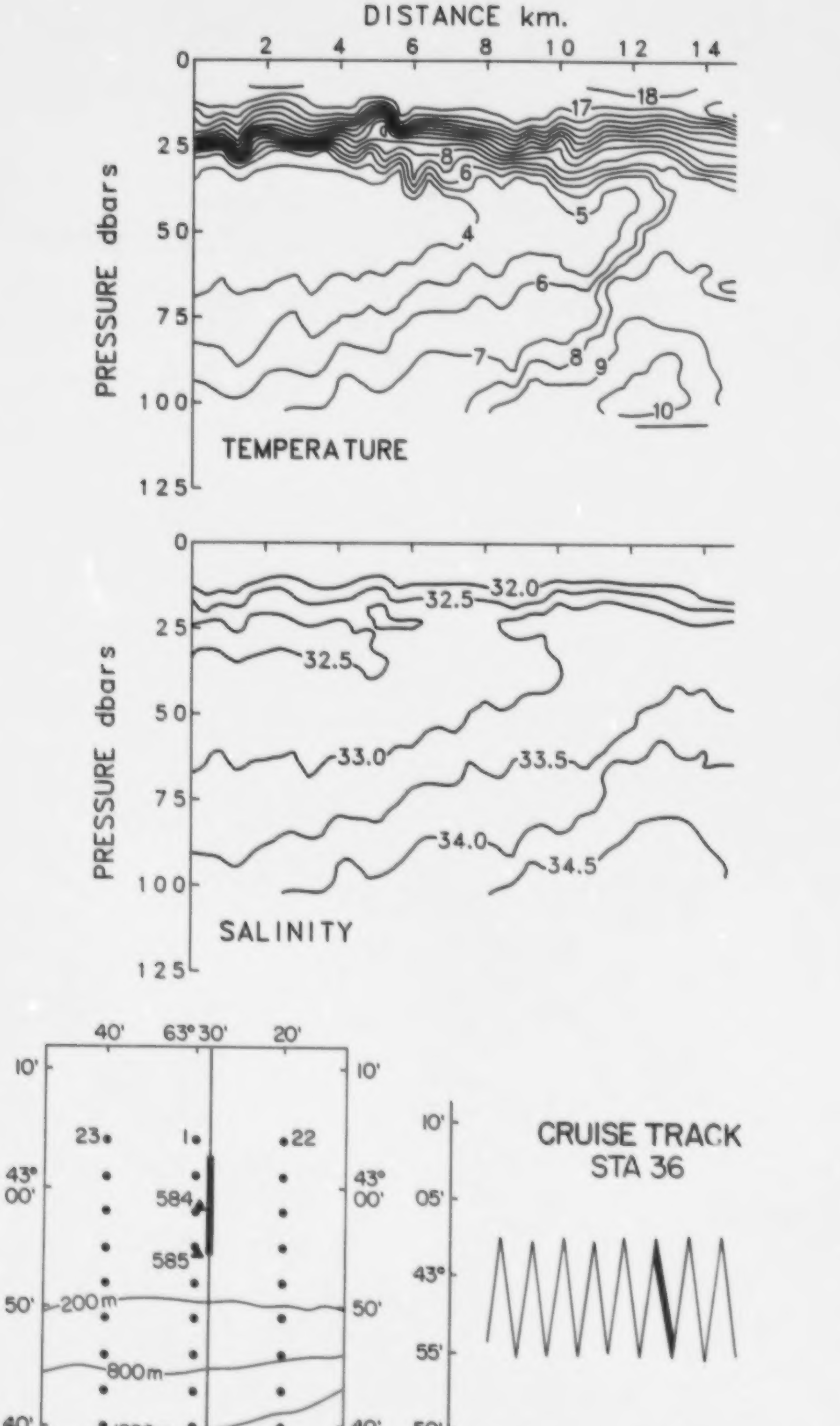

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
8
6
5
4
6
7
8
9
10
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 146

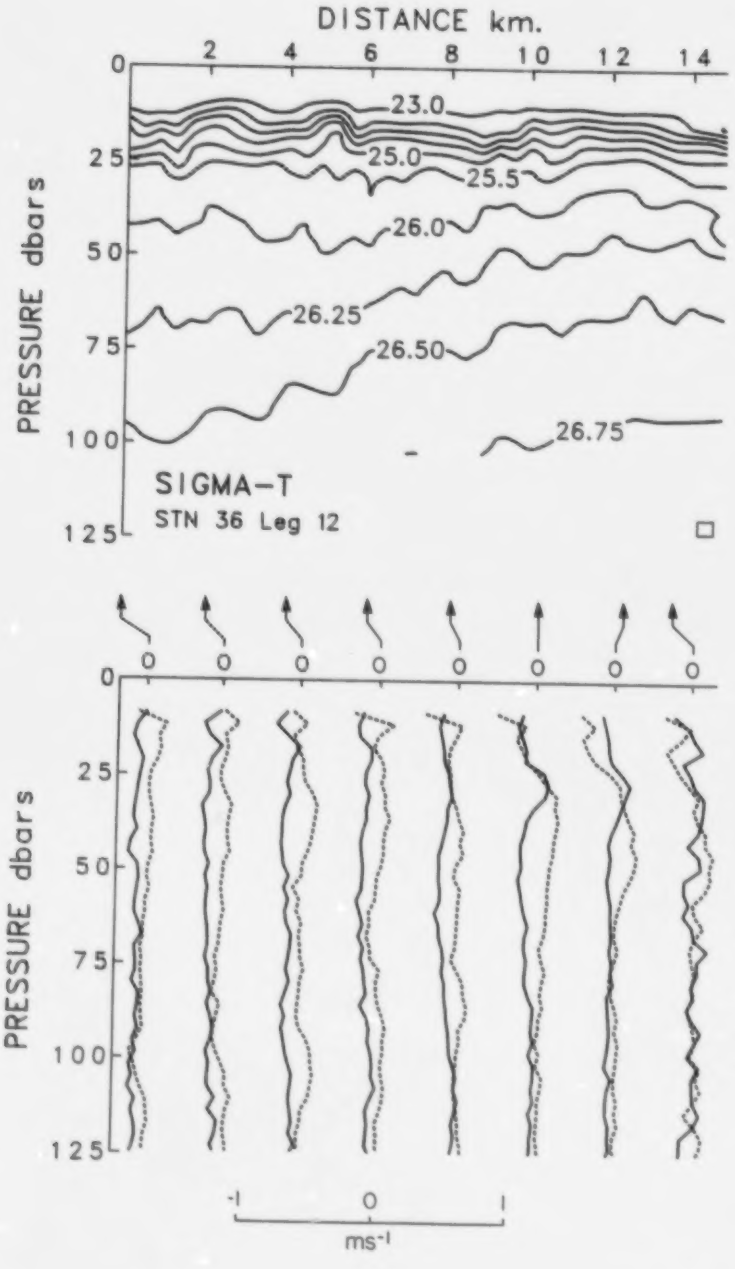

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 12
0
0
0
0
0
0
0
0
-1
0
1
ms-1

Fig. 147

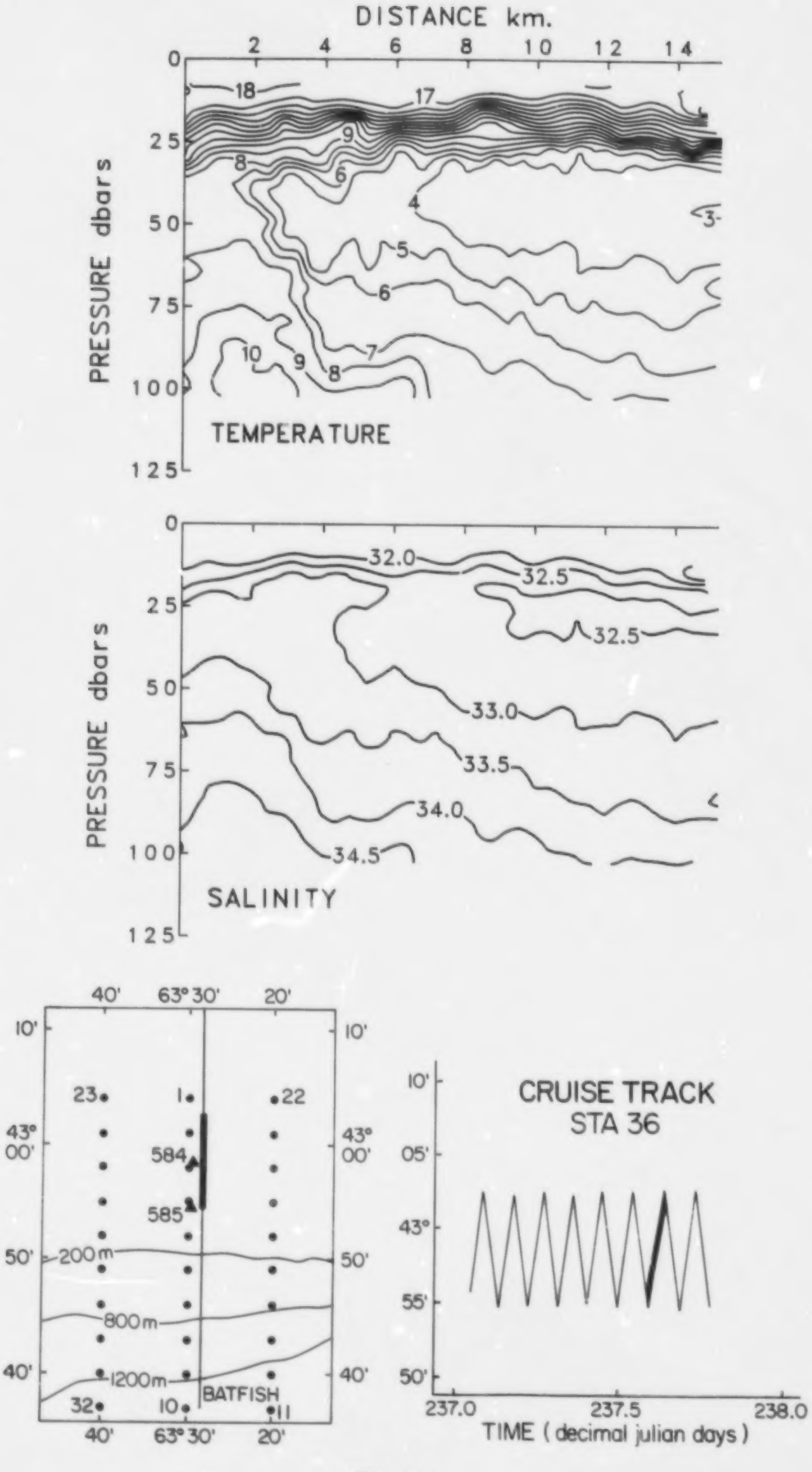

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
18
17
9
8
6
4
3
5
6
7
8
9
10
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
10'
05'
43°
55'
50'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 148

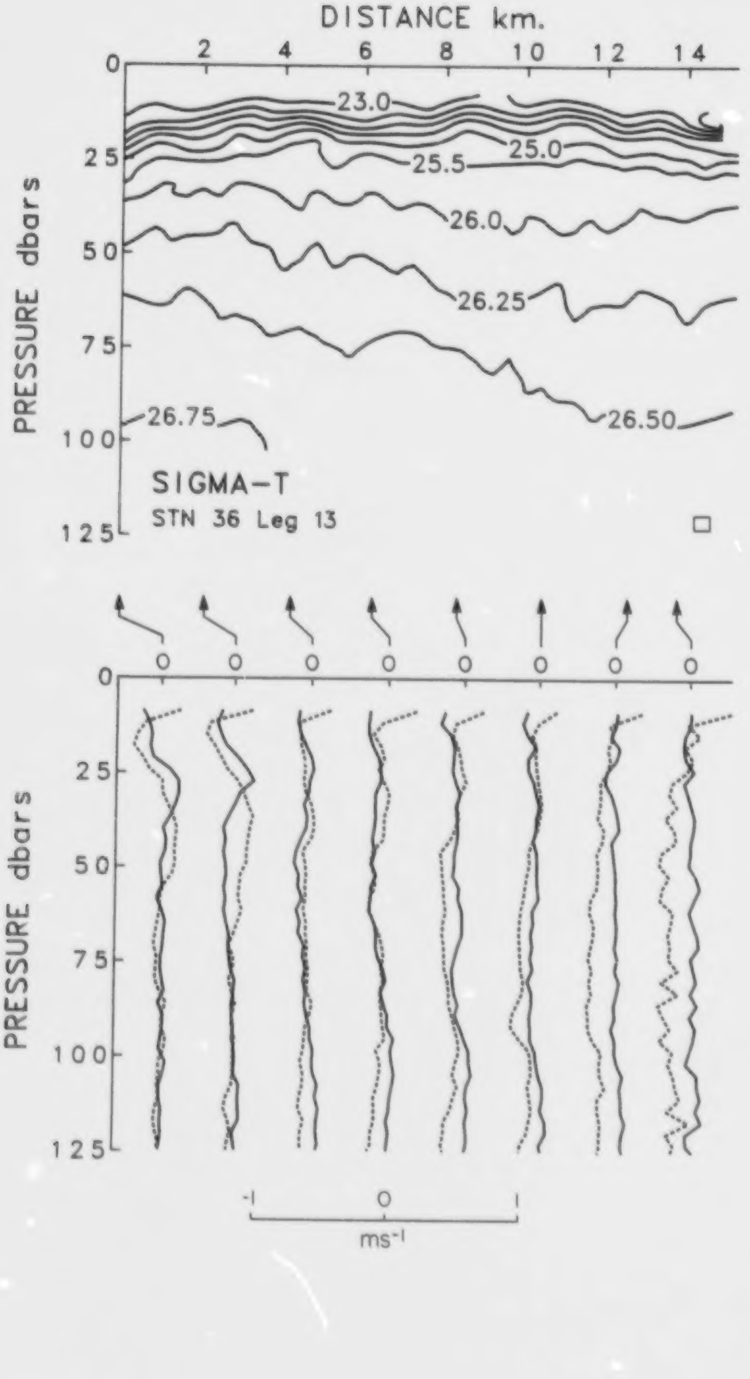

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 13
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 149

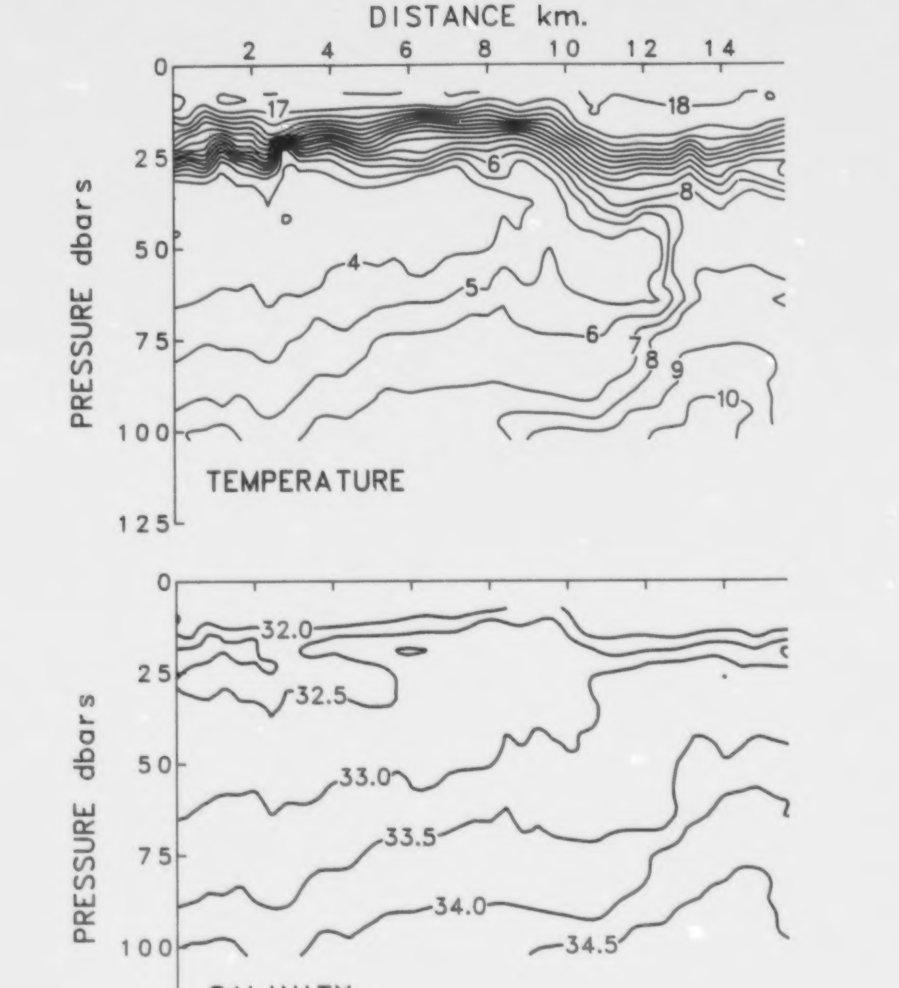

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
17
18
6
8
4
5
6
7
8
9
10
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 36
05'
43°
55'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 150

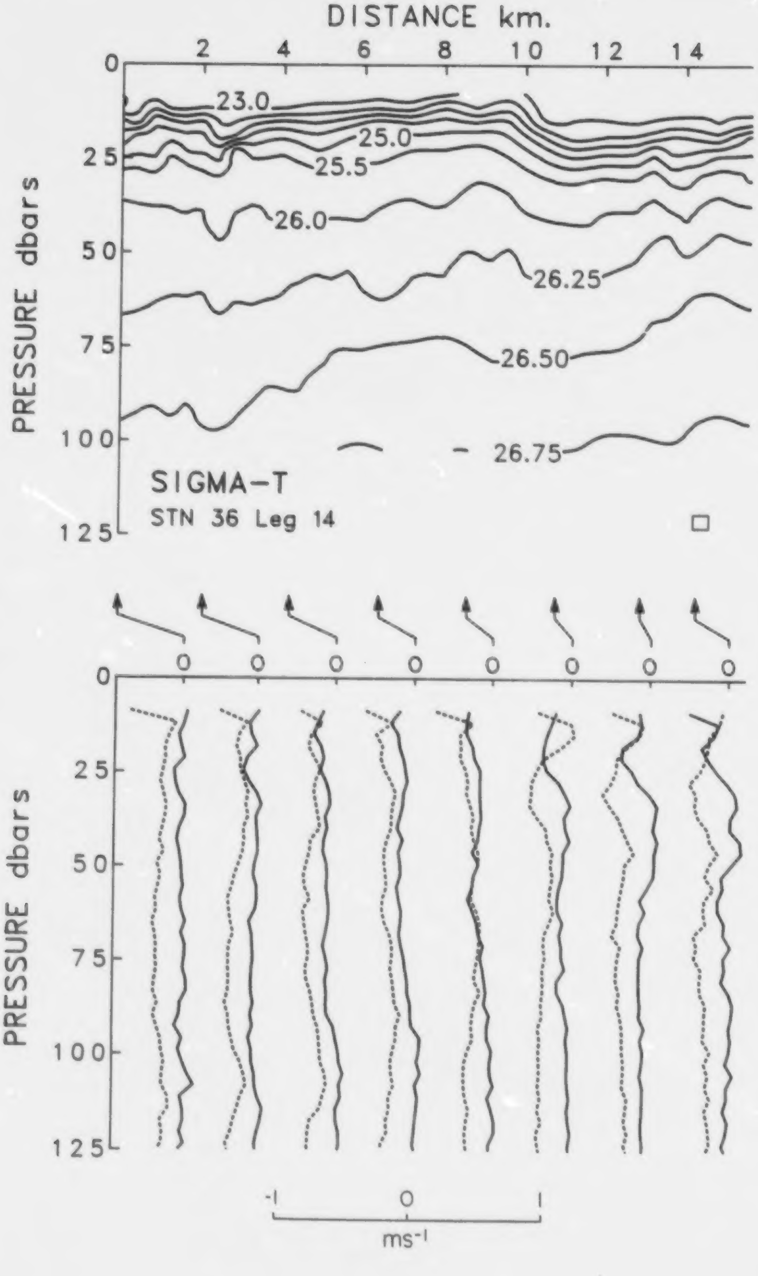

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 14
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 151

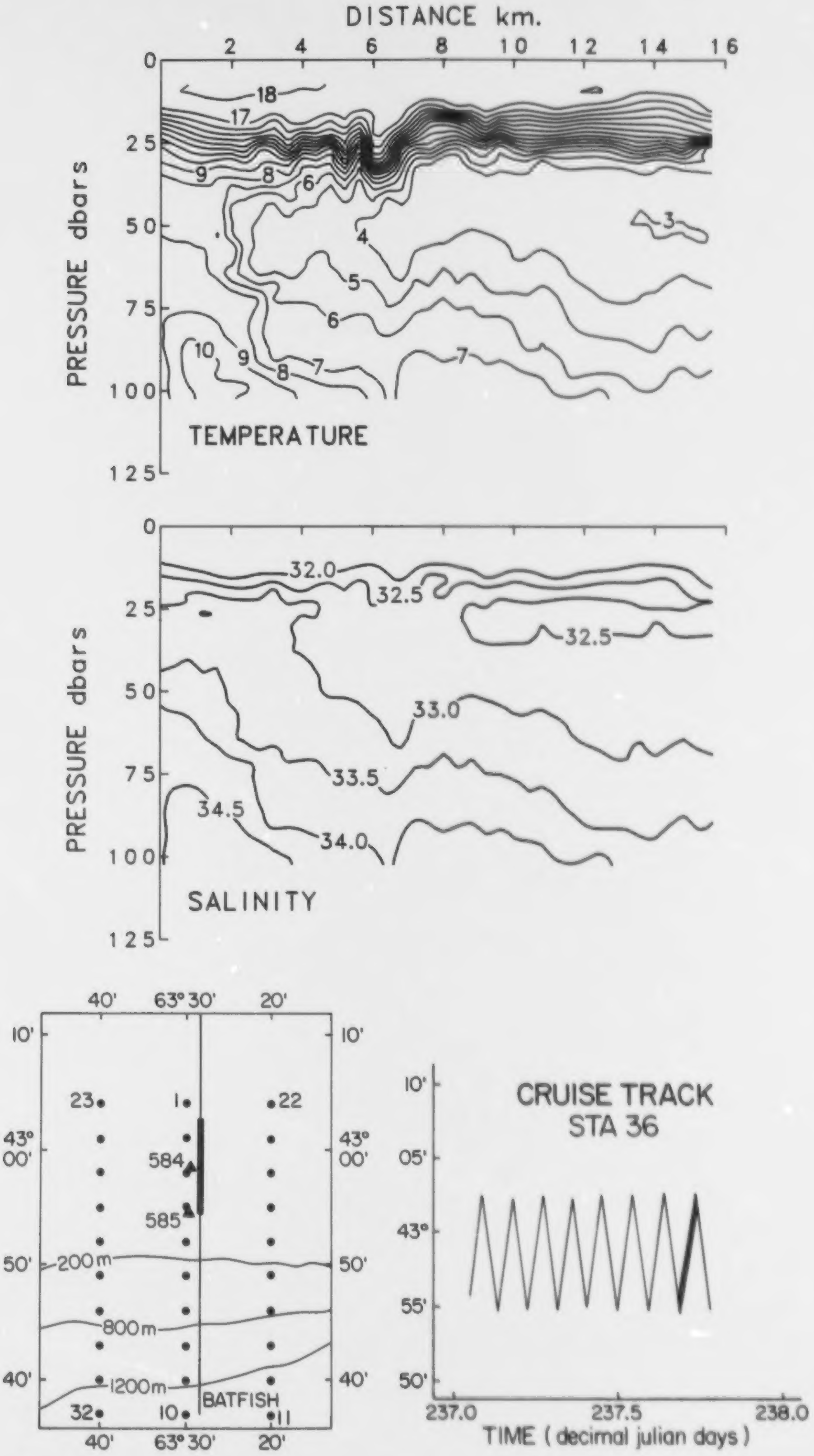

DISTANCE km.
2
4
6
8
10
12
14
16
PRESSURE dbars
0
25
50
75
100
125
18
17
9
8
6
4
5
6
7
3
10
9
8
7
TEMPERATURE
32.0
32.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
05'
55'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 152

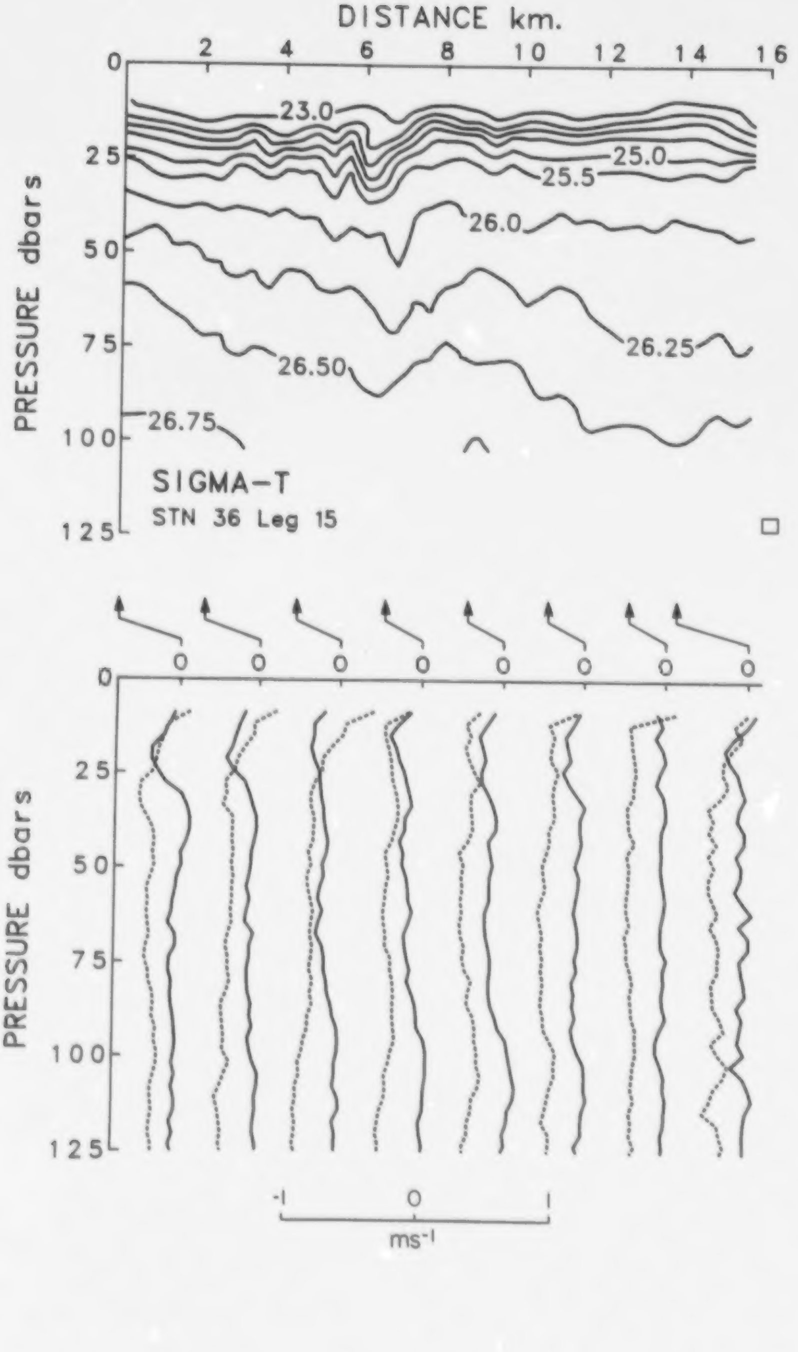

DISTANCE km.
0
2
4
6
8
10
12
14
16
PRESSURE dbars
0
25
50
75
100
125
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 15
0
PRESSURE dbars
25
50
75
100
125
-1
0
1
ms-1

Fig. 153

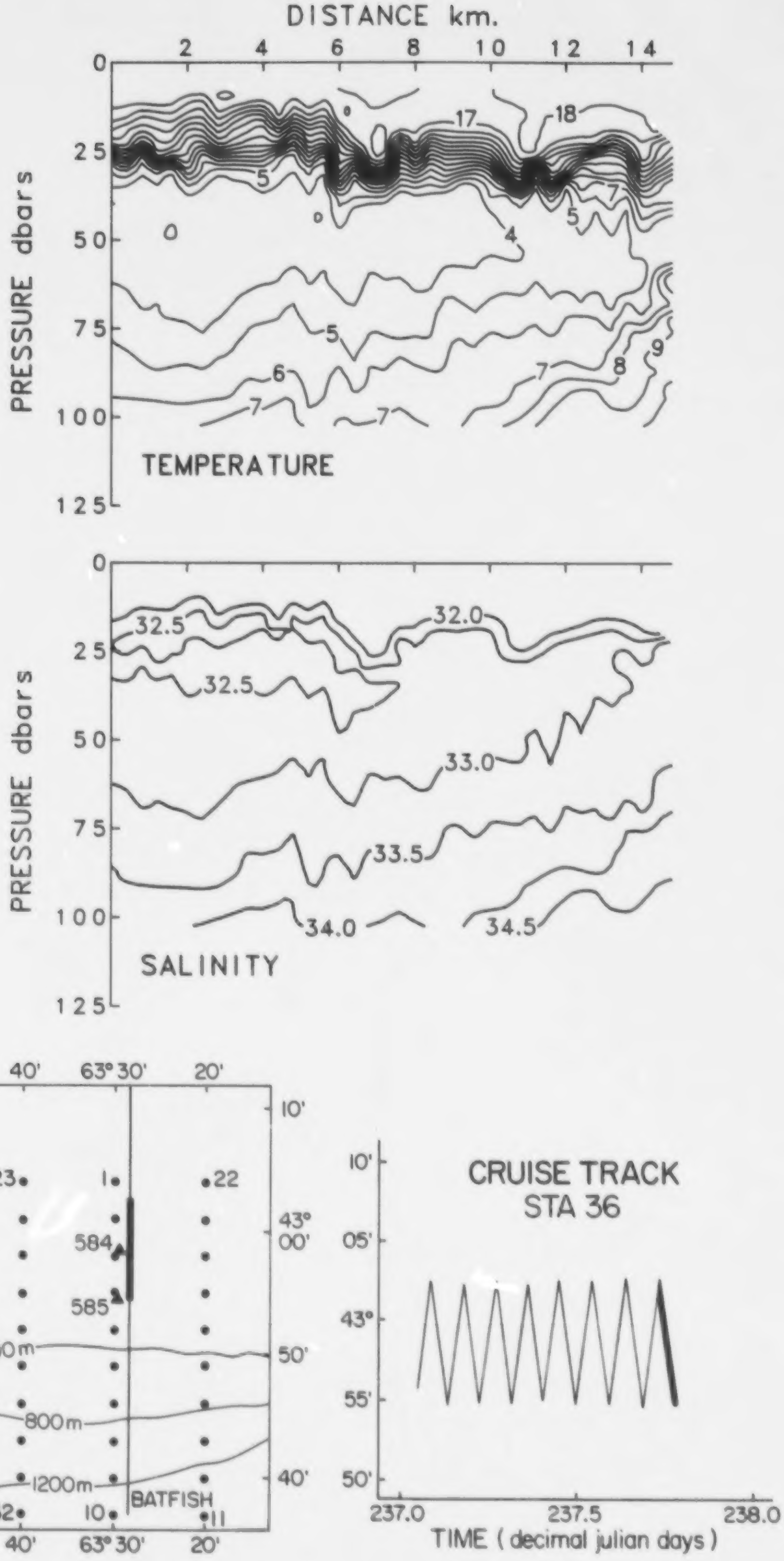

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
17
18
5
4
7
6
8
9
TEMPERATURE
32.5
32.0
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 36
05'
43°
55'
237.0
237.5
238.0
TIME (decimal julian days)

Fig. 154

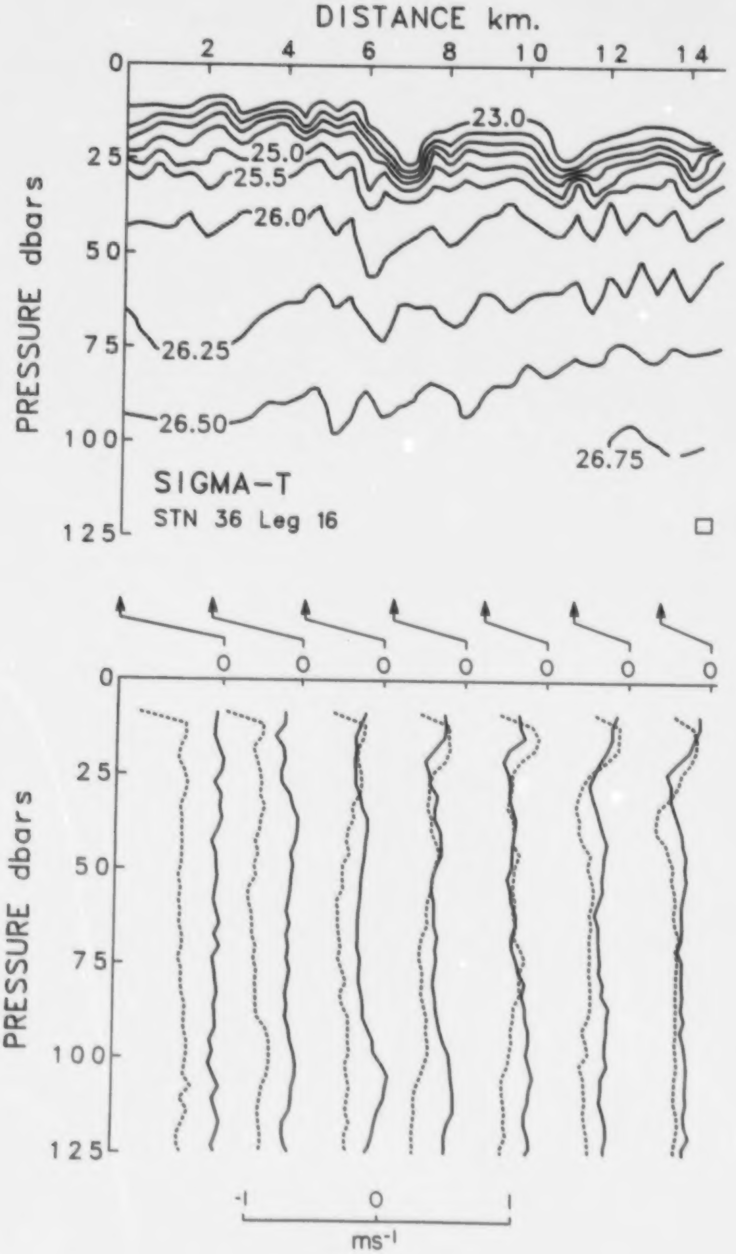

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 36 Leg 16
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 155

Figures 156-189

BATFISH station 37; 17 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

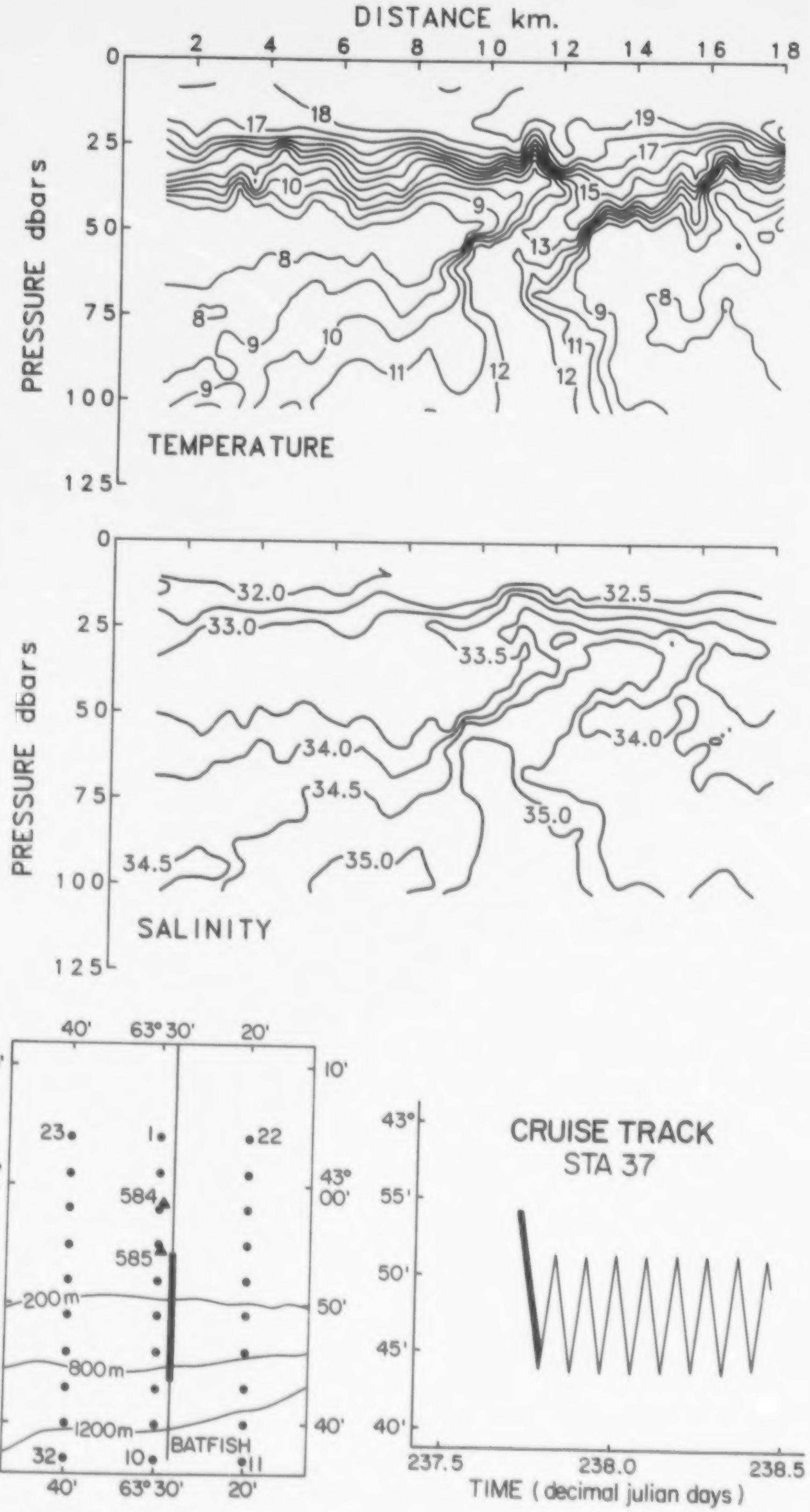

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
25
50
75
100
125
17
18
19
17
10
9
15
13
8
8
9
10
11
12
12
11
9
9
8
9
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.0
34.5
35.0
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
-200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 156

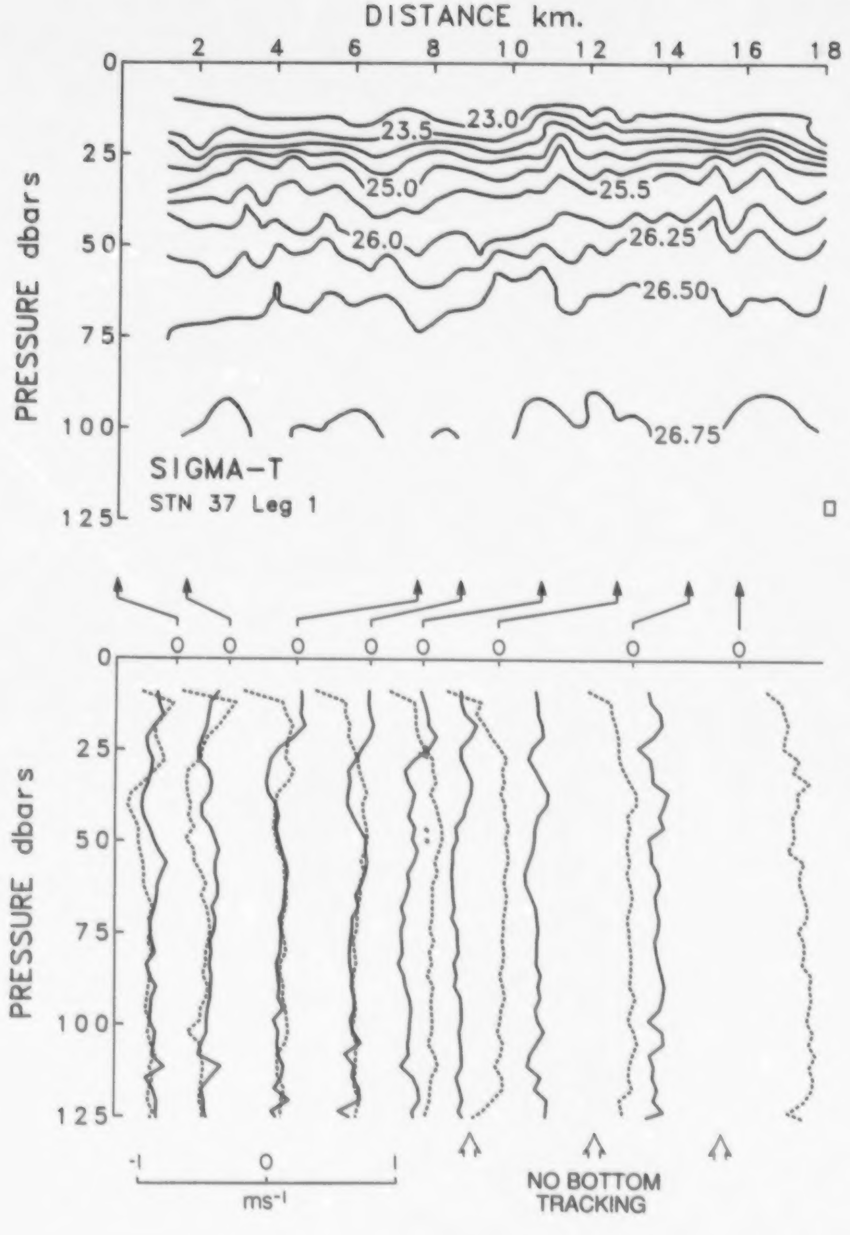

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 1
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
NO BOTTOM
TRACKING

Fig. 157

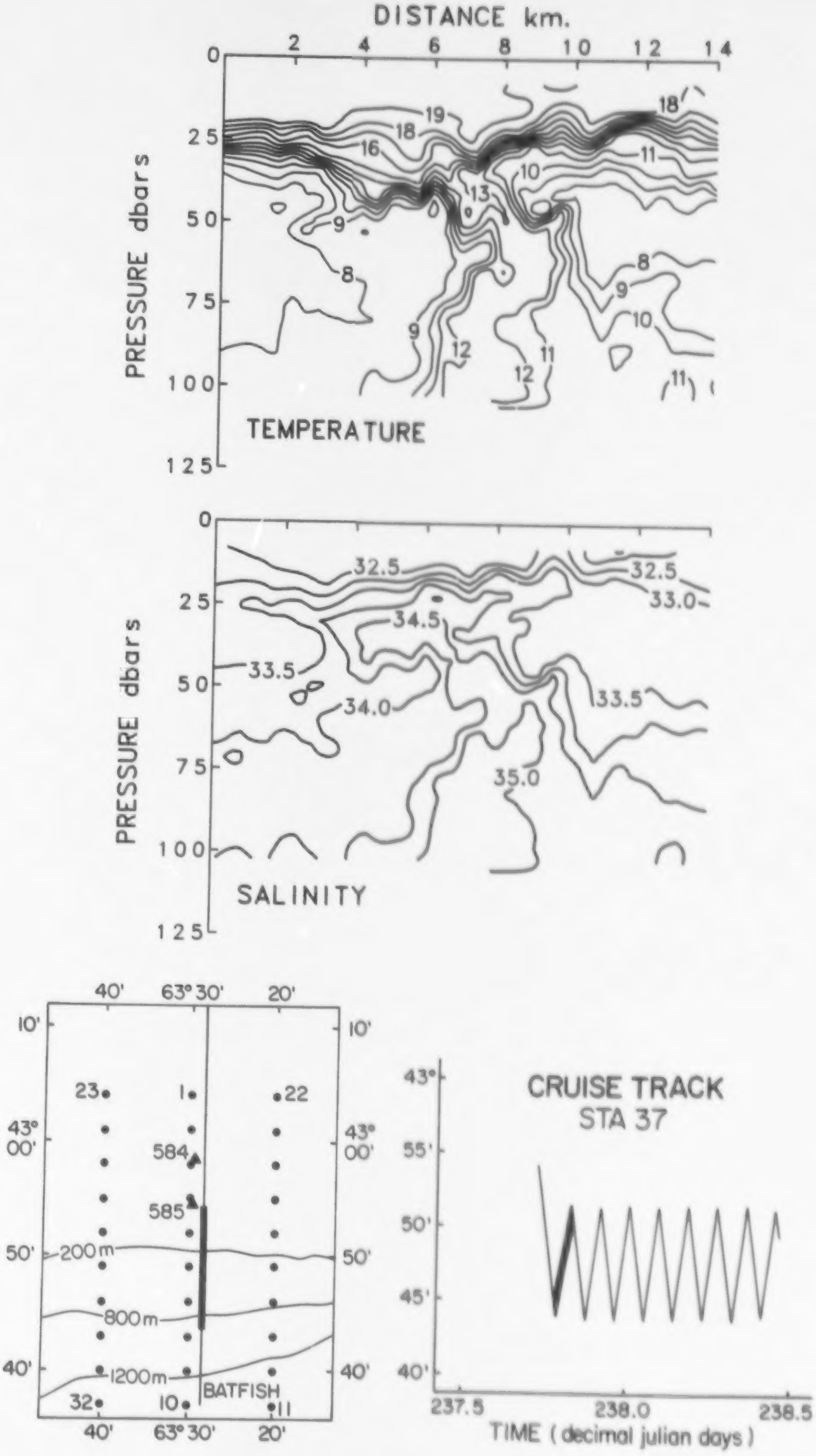

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
19
18
16
9
8
13
10
11
12
TEMPERATURE
32.5
33.0
34.5
33.5
34.0
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
55'
45'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 158

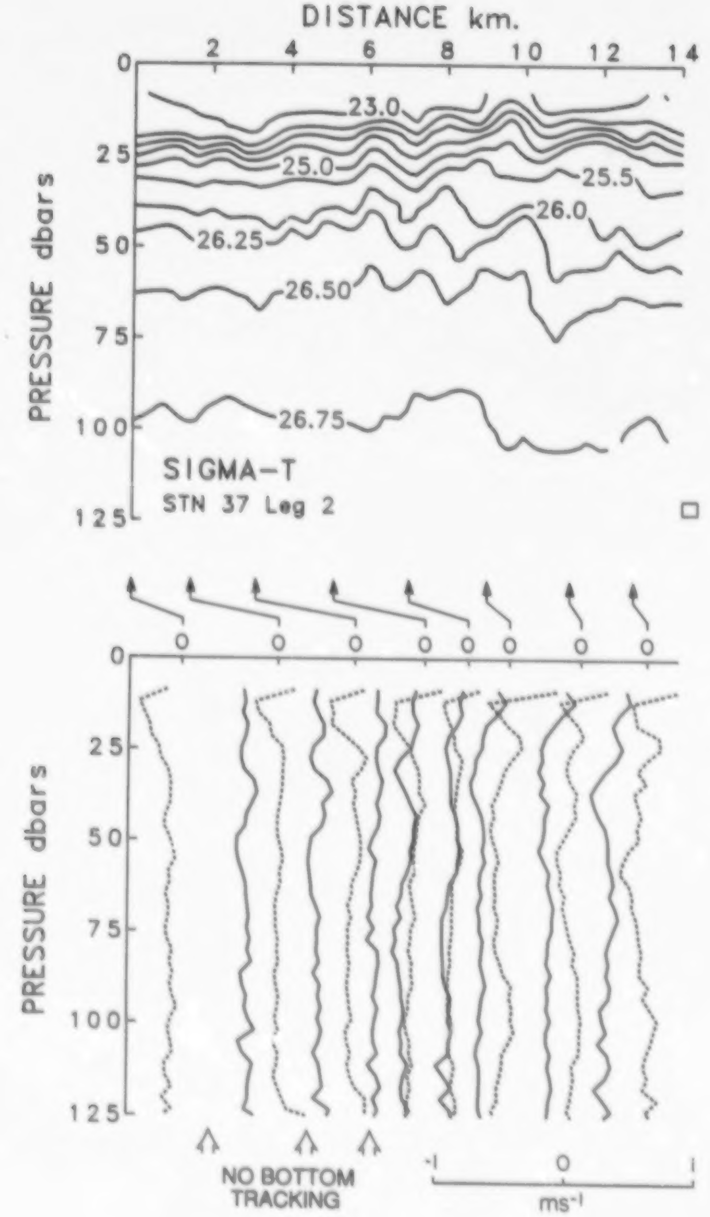

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 2
0
25
50
75
100
125
PRESSURE dbars
NO BOTTOM TRACKING
-1
0
1
ms⁻¹

Fig. 159

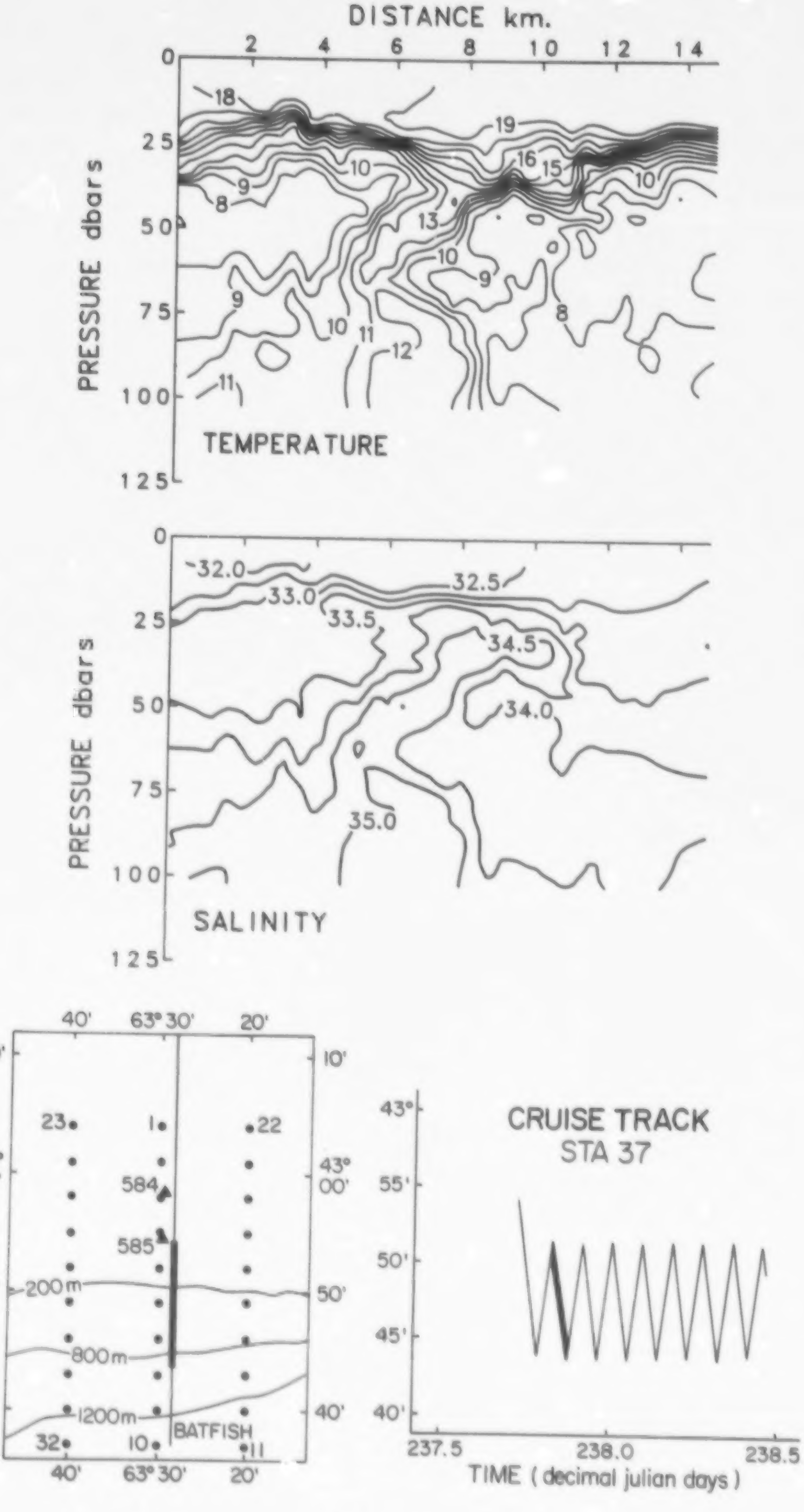

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
18
19
16
15
10
9
8
13
10
9
9
10
11
12
8
11
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
33.0
33.5
34.5
34.0
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 160

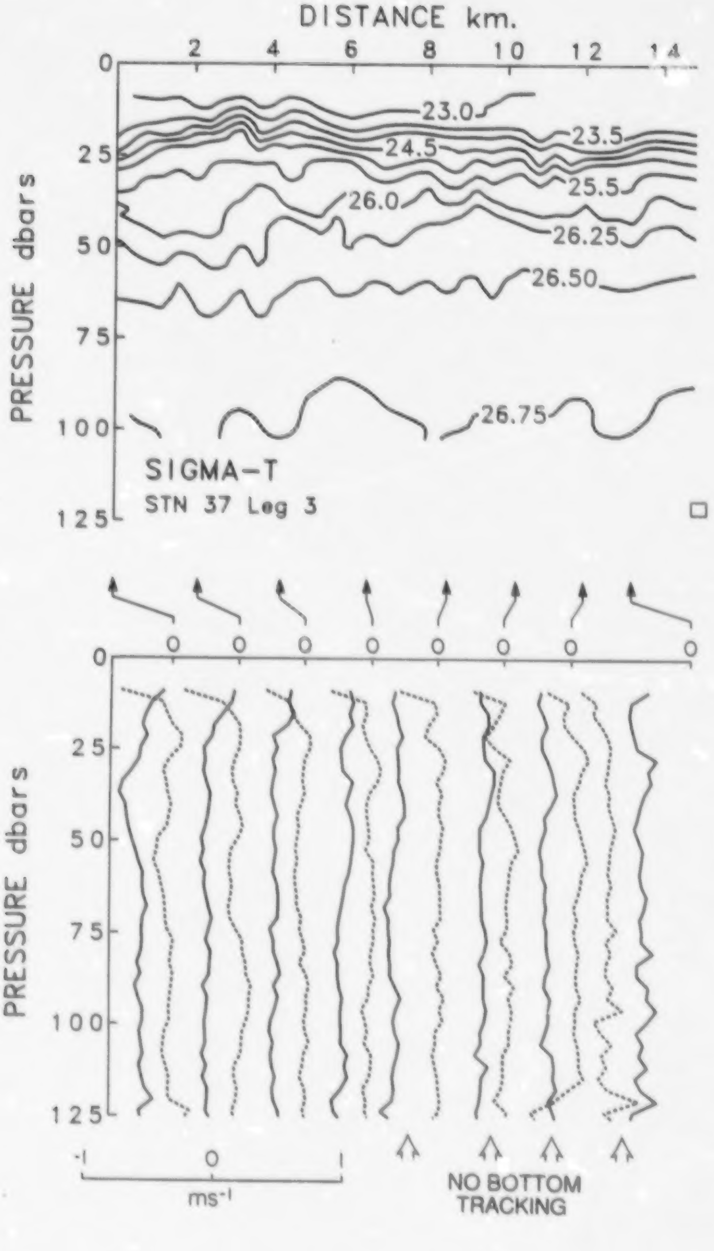

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
24.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 3
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
NO BOTTOM
TRACKING

Fig. 161

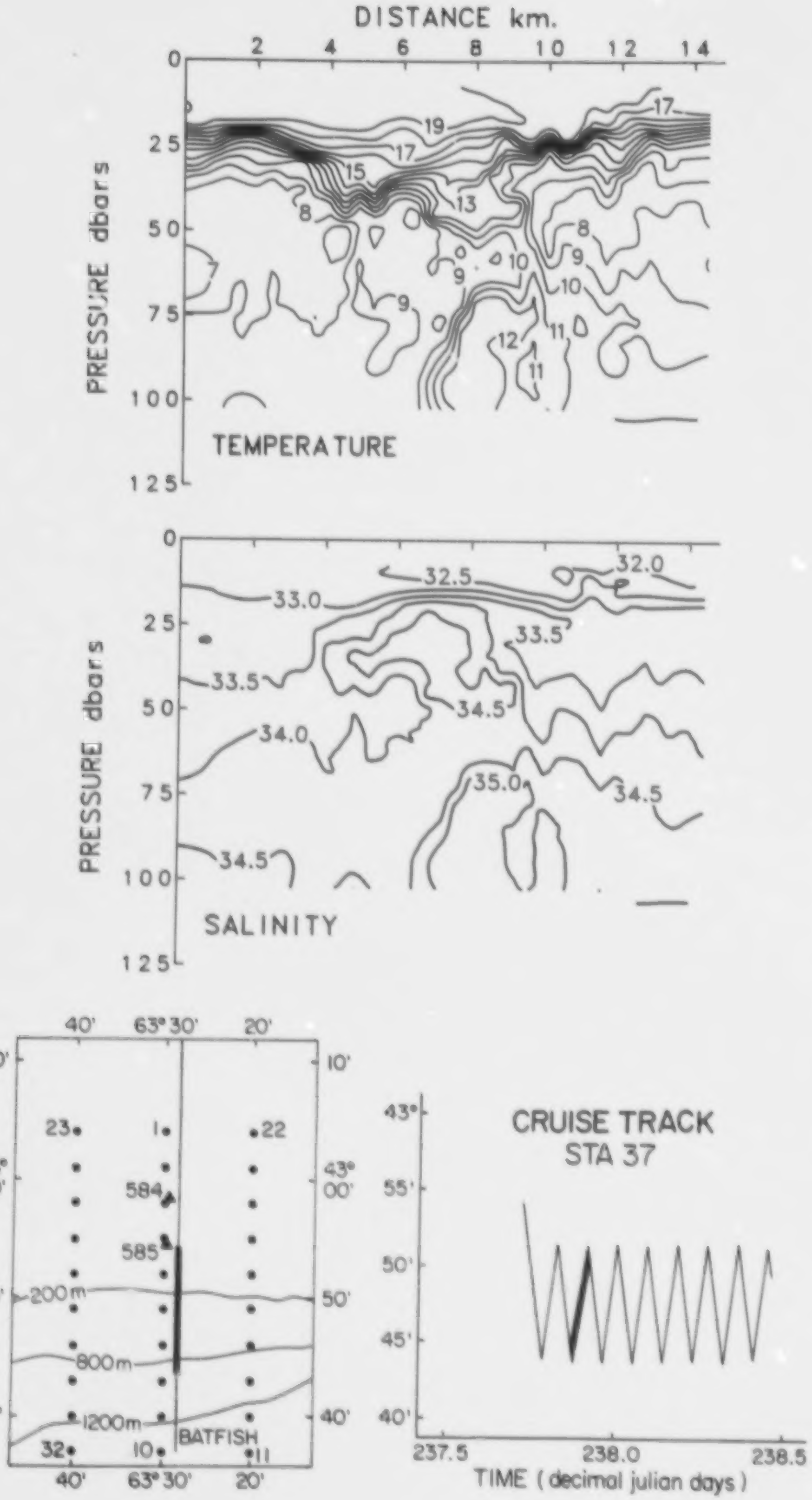

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
17
15
13
8
9
10
11
12
7
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.5
32.0
33.0
33.5
34.5
34.0
35.0
34.5
SALINITY
40'
63°30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
43°
55'
50'
45'
40'
CRUISE TRACK
STA 37
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 162

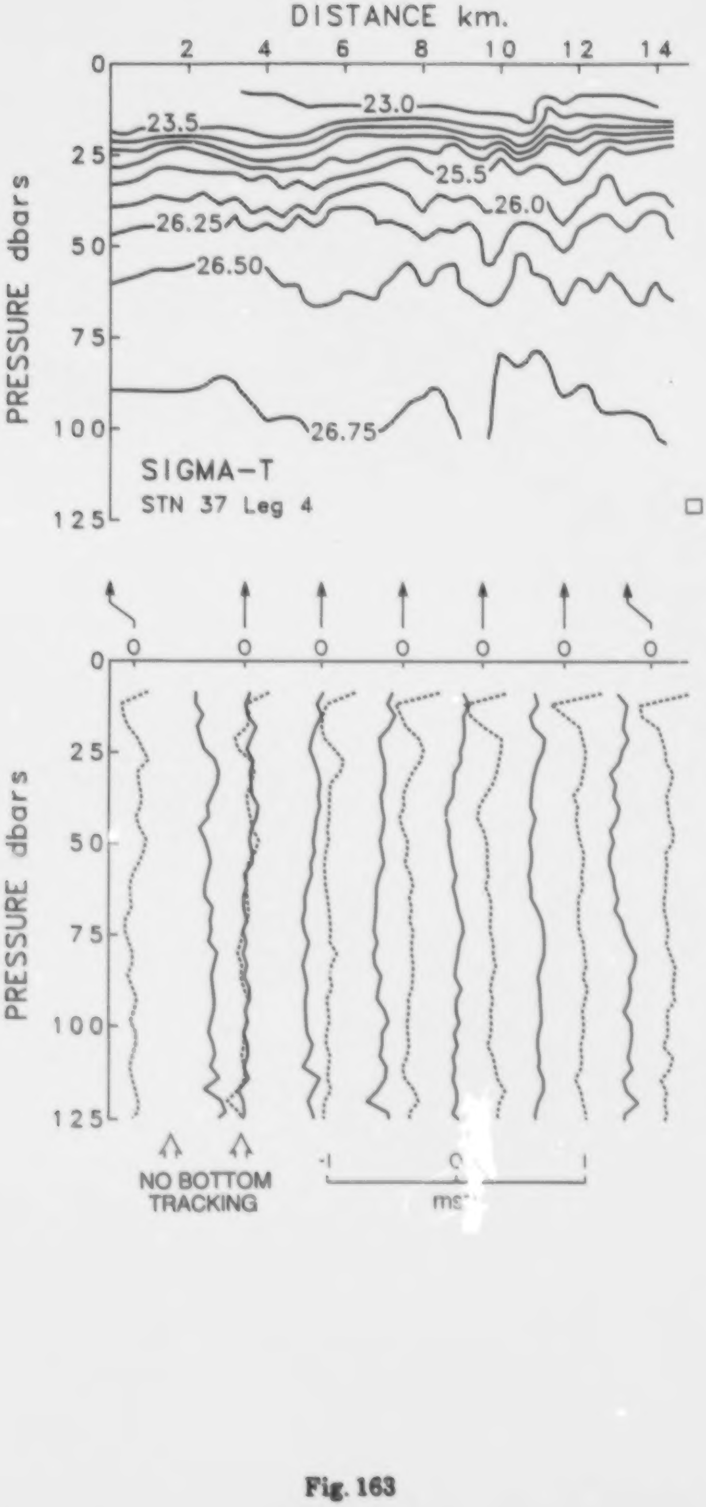

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 4
0
25
50
75
100
125
PRESSURE dbars
NO BOTTOM TRACKING
-1
0
1
ms

Fig. 163

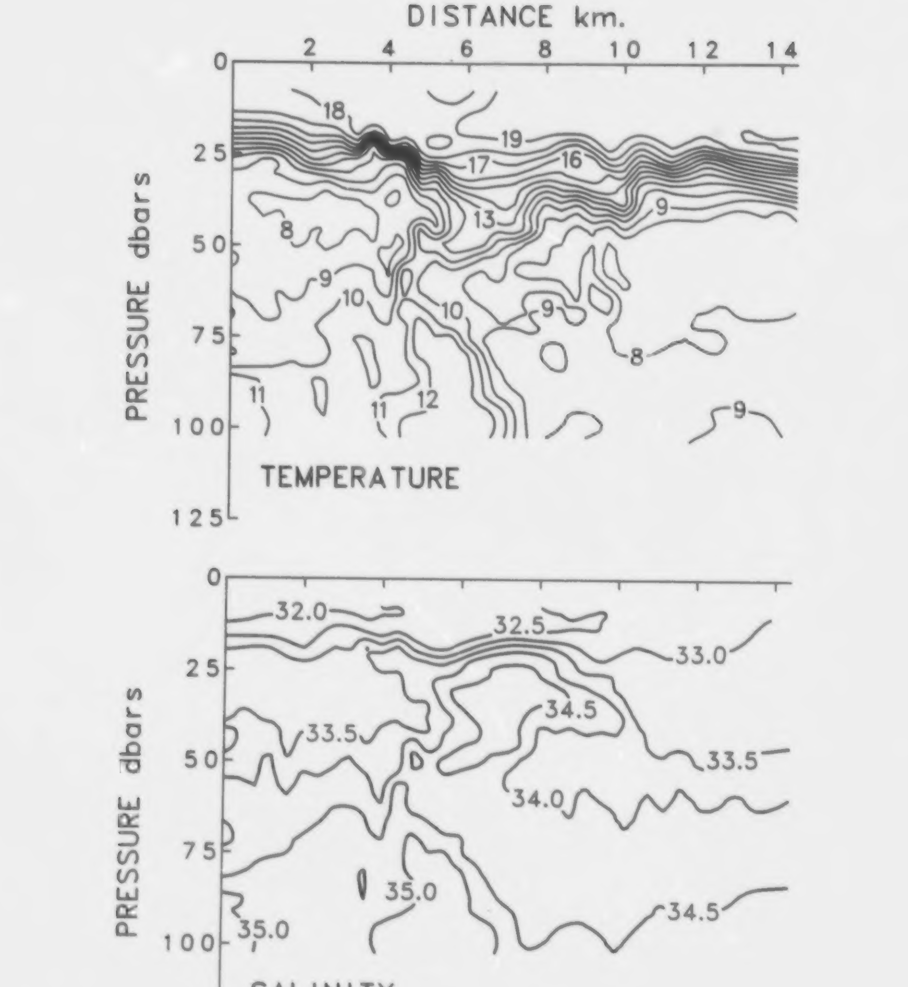

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
19
16
17
13
9
8
10
11
12
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
32
10
11
200m
800m
1200m
BATFISH
CRUISE TRACK
STA 37
43°
55'
45'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 164

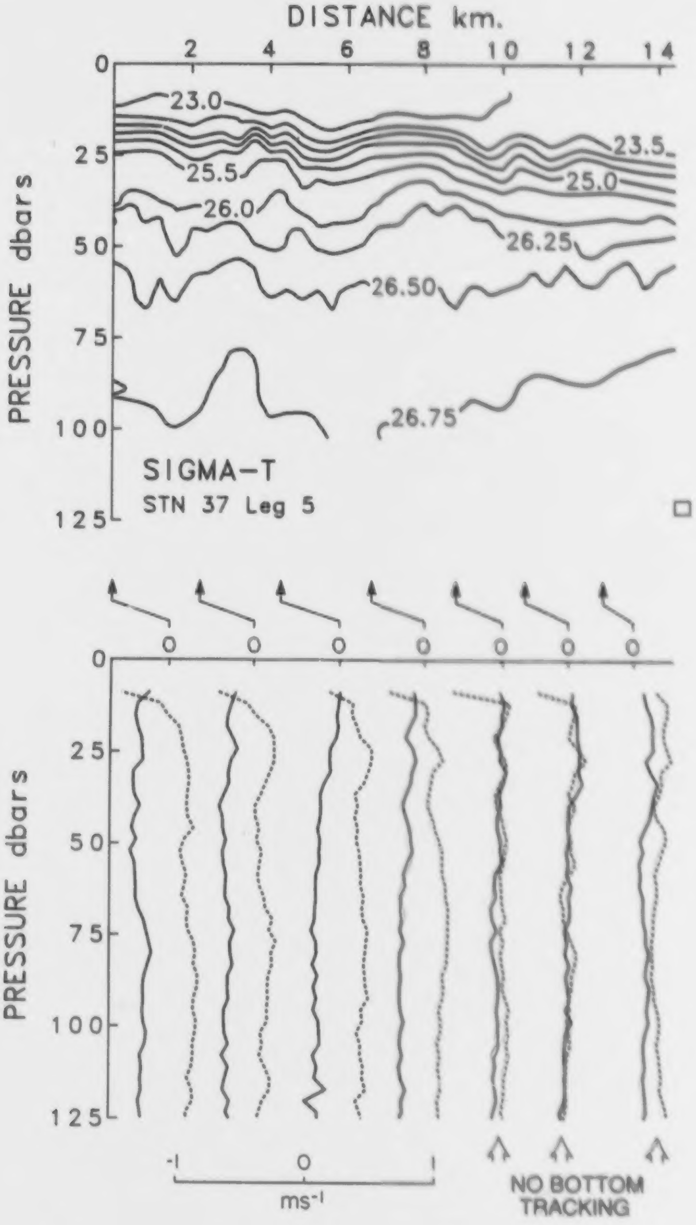

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
25.0
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 5
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
NO BOTTOM
TRACKING

Fig. 165

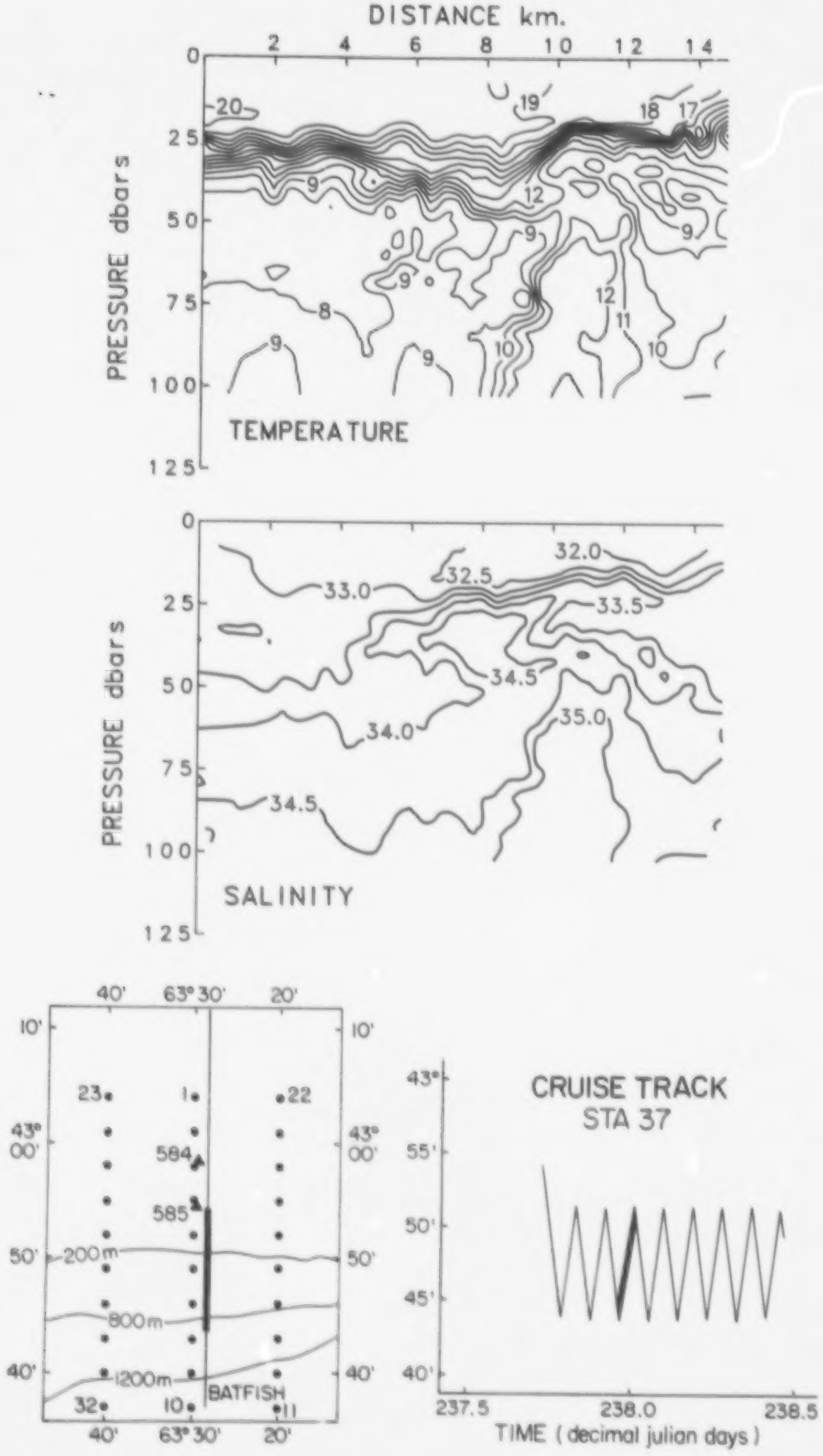

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
20
19
18
17
9
12
9
8
9
9
10
12
11
10
9
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
32.0
32.5
33.0
33.5
34.5
34.0
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 166

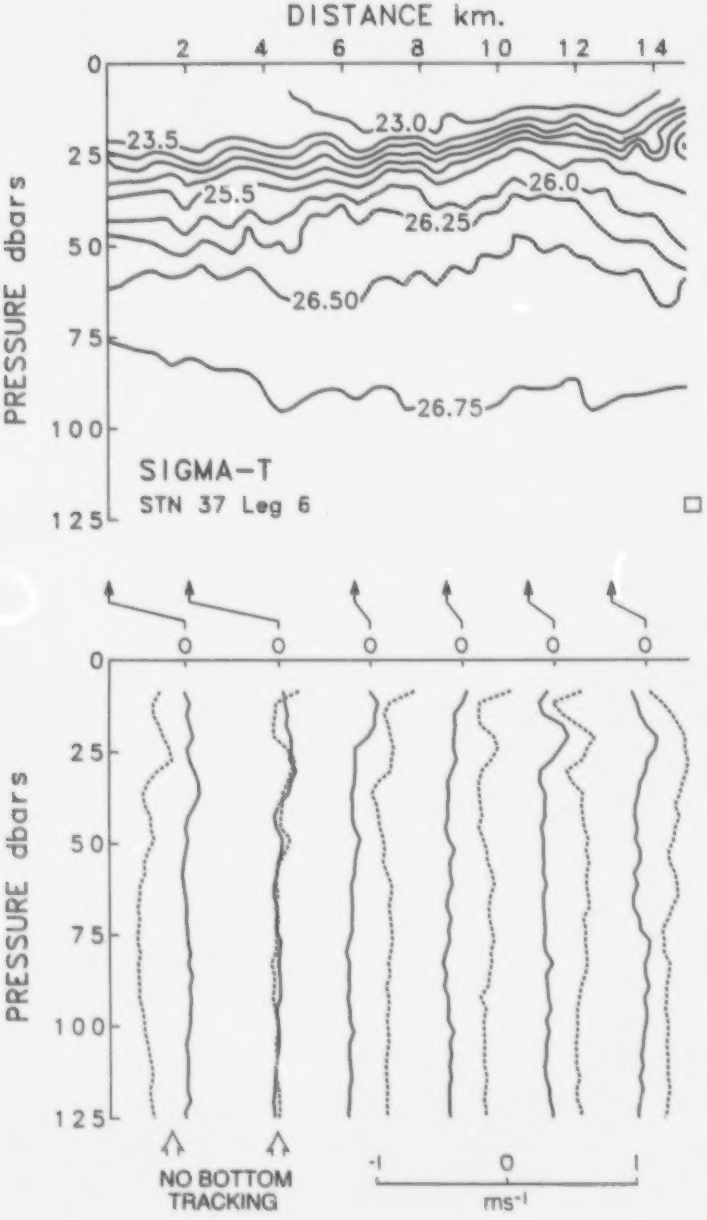

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 6
0
0
25
50
75
100
125
PRESSURE dbars
NO BOTTOM TRACKING
-1
0
1
ms-1

Fig. 167

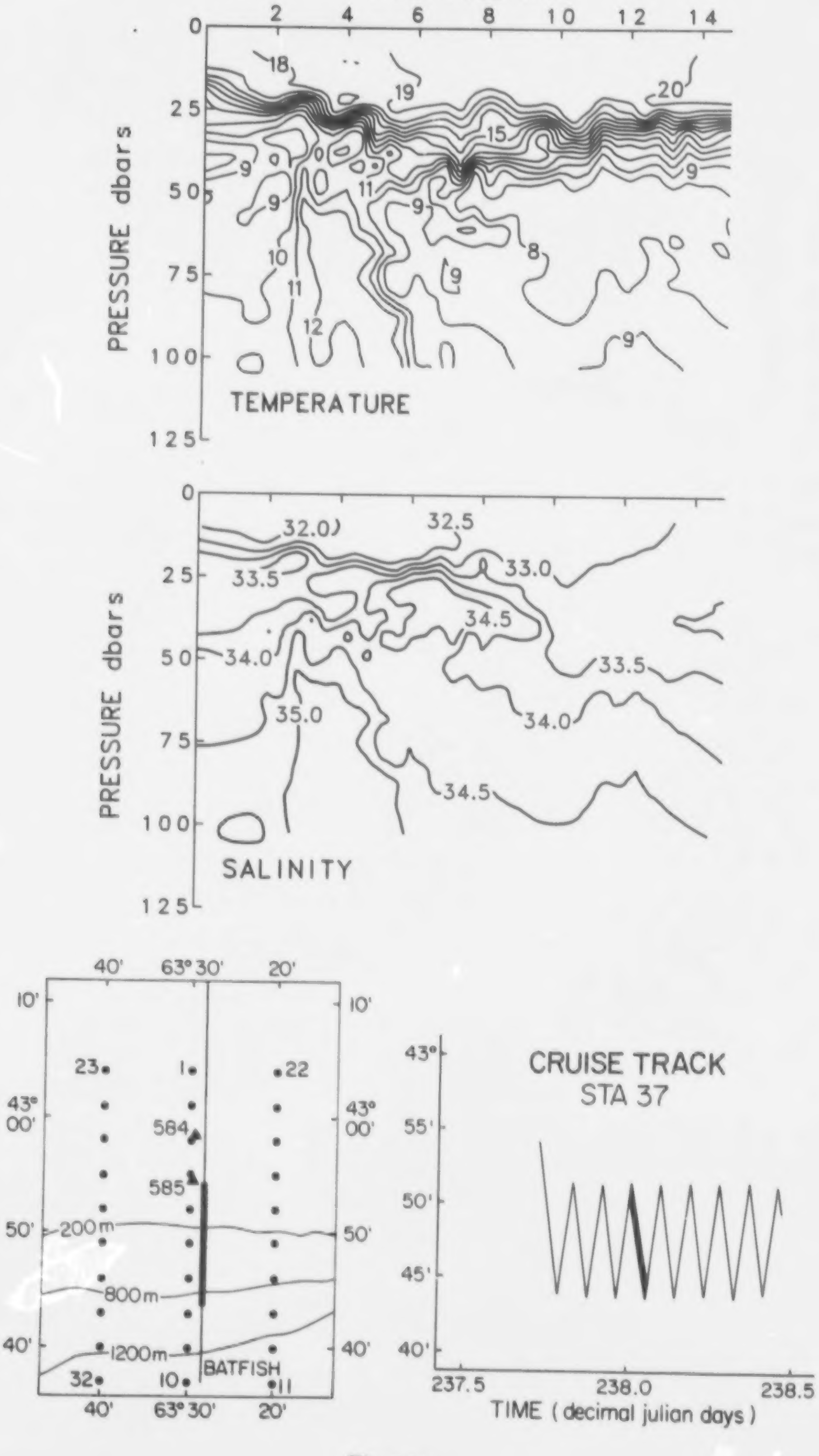

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
19
20
15
9
11
10
12
8
TEMPERATURE
32.0
32.5
33.0
33.5
34.5
34.0
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
45'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 168

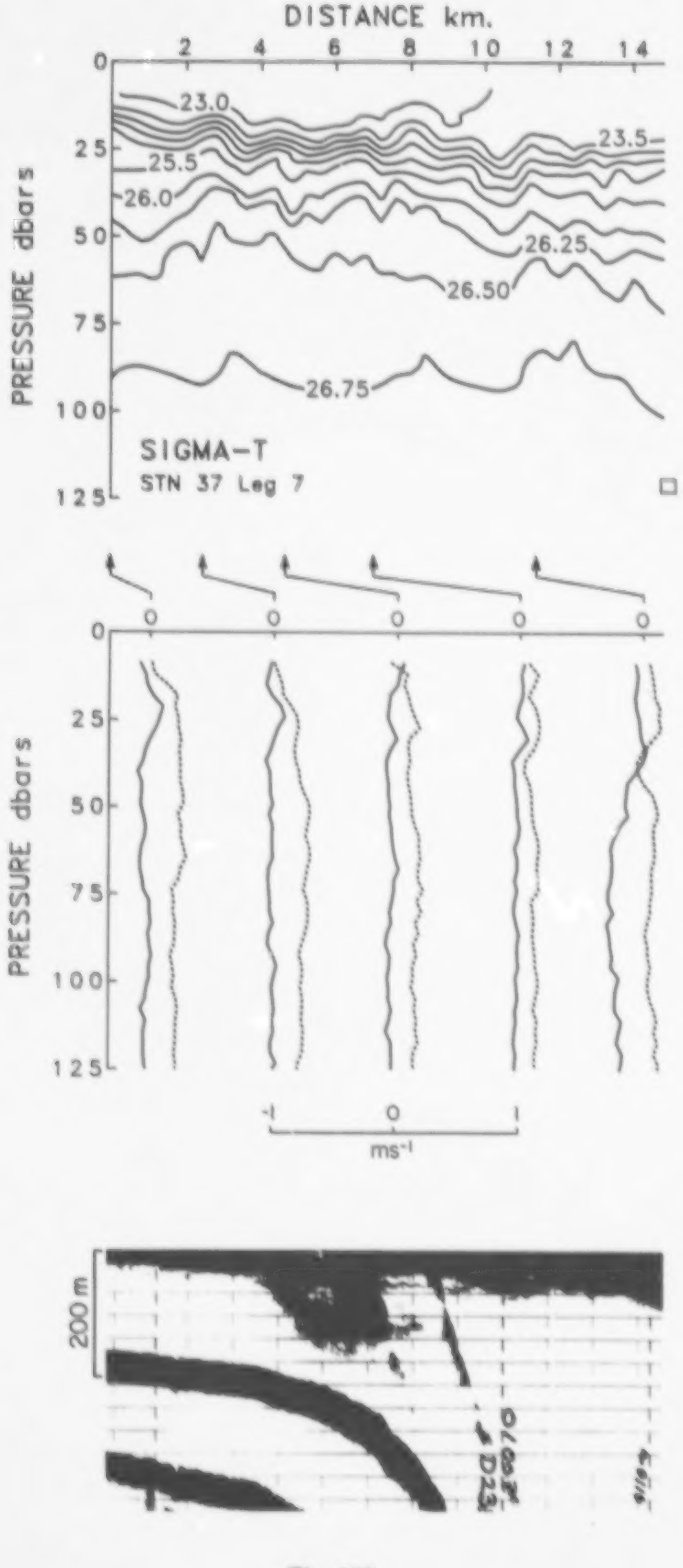

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 7
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹
200 m
D23

Fig. 169

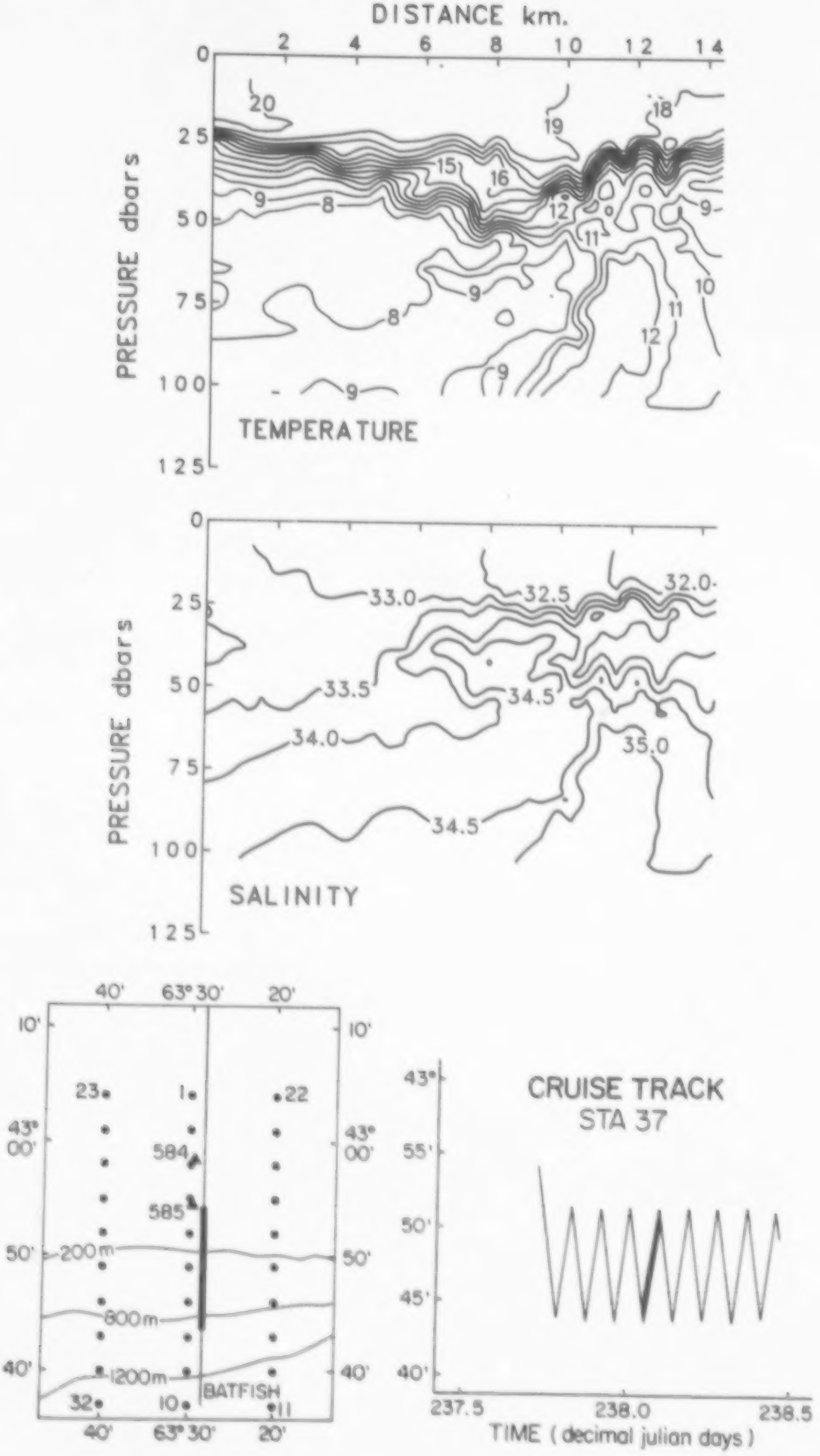

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
20
19
18
15
16
9
8
12
11
9
10
11
12
8
9
9
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
33.0
32.5
32.0
33.5
34.5
34.0
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 170

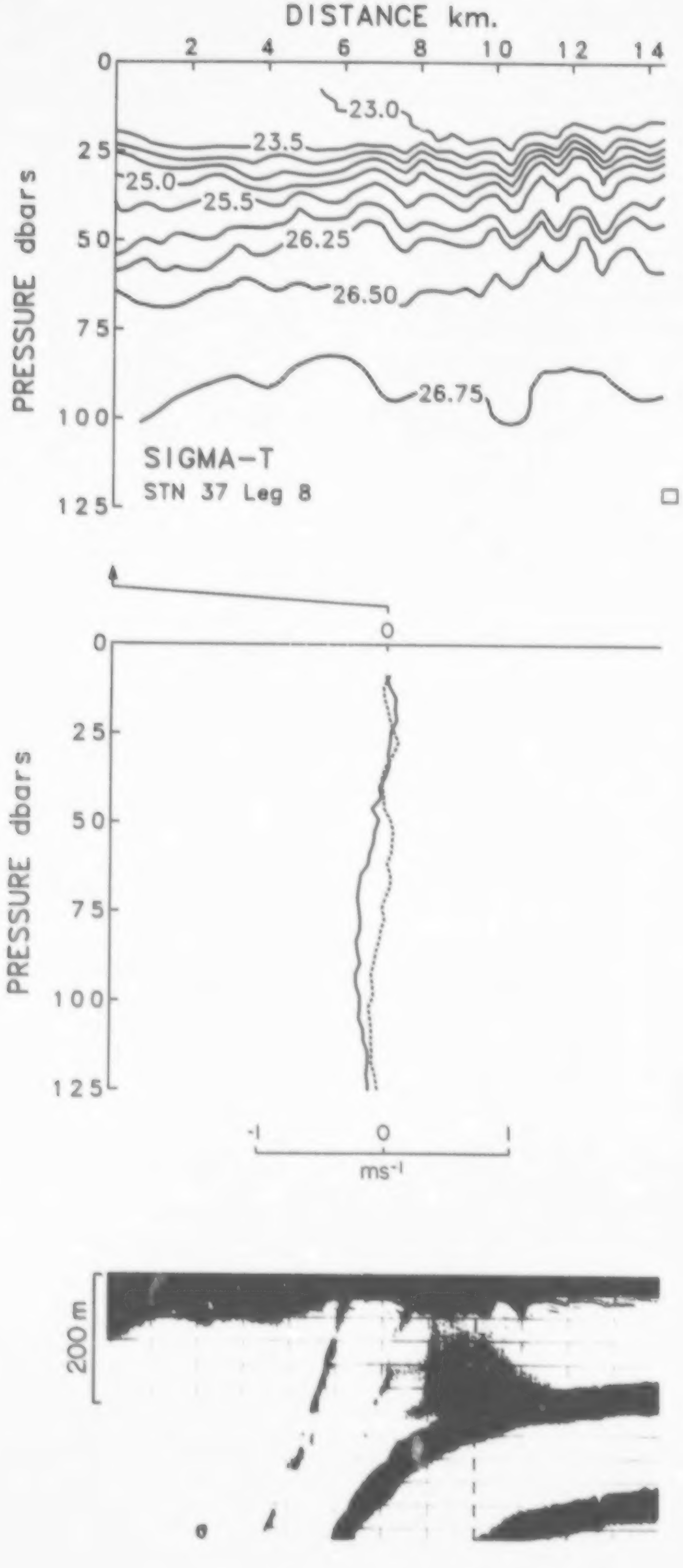

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 8
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 171

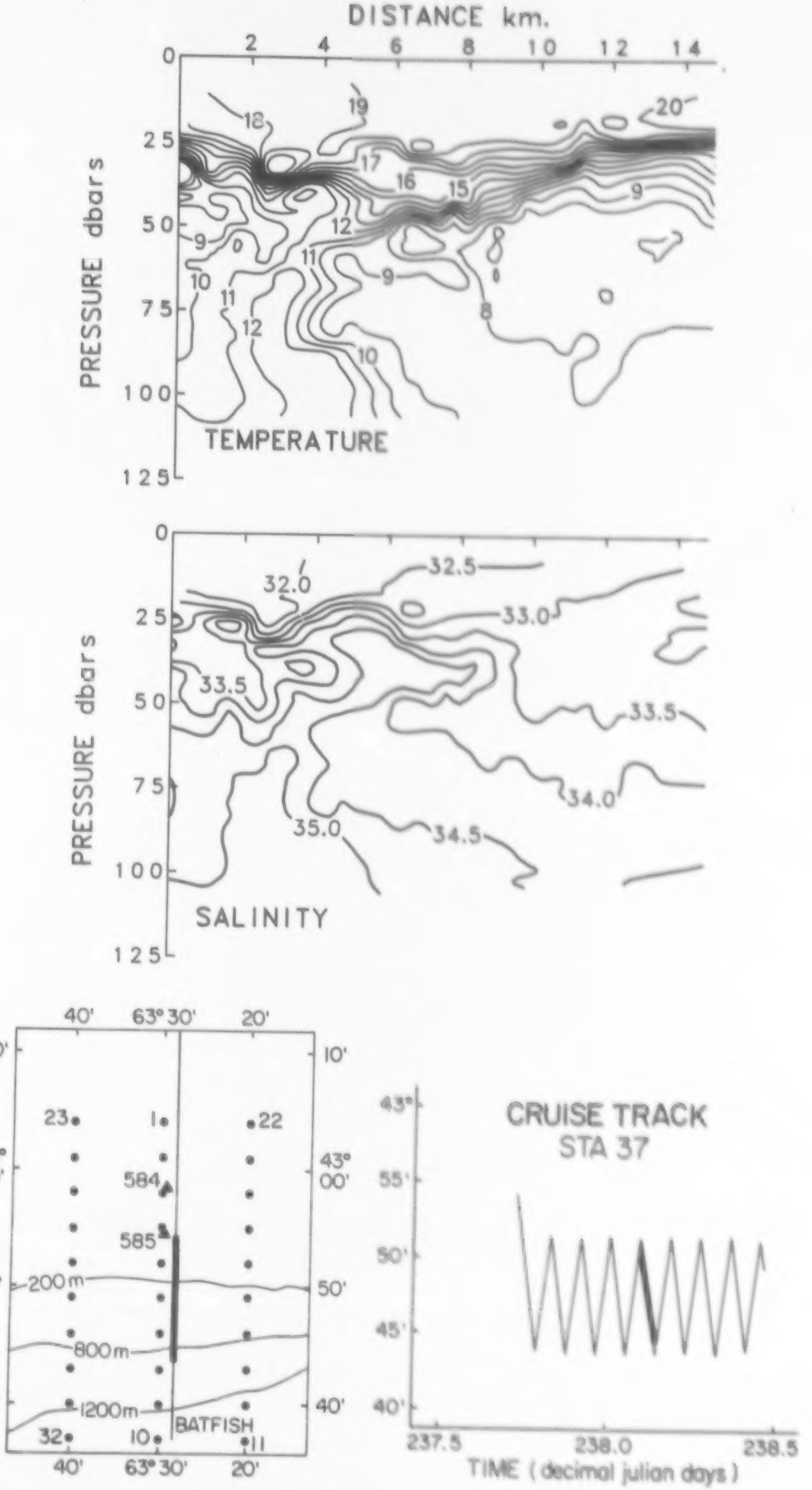

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
25
50
75
100
125
18
19
20
17
16
15
12
11
10
9
8
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 172

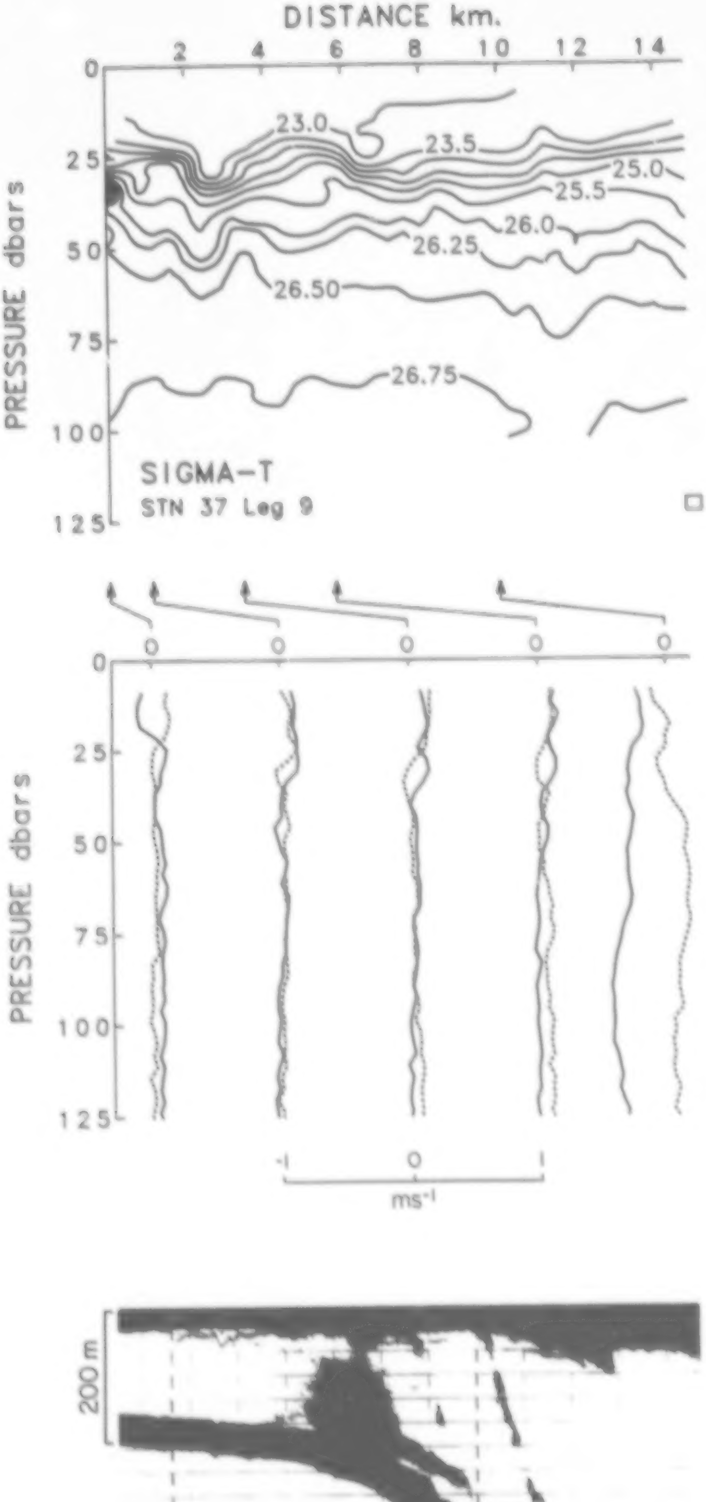

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 9
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 173

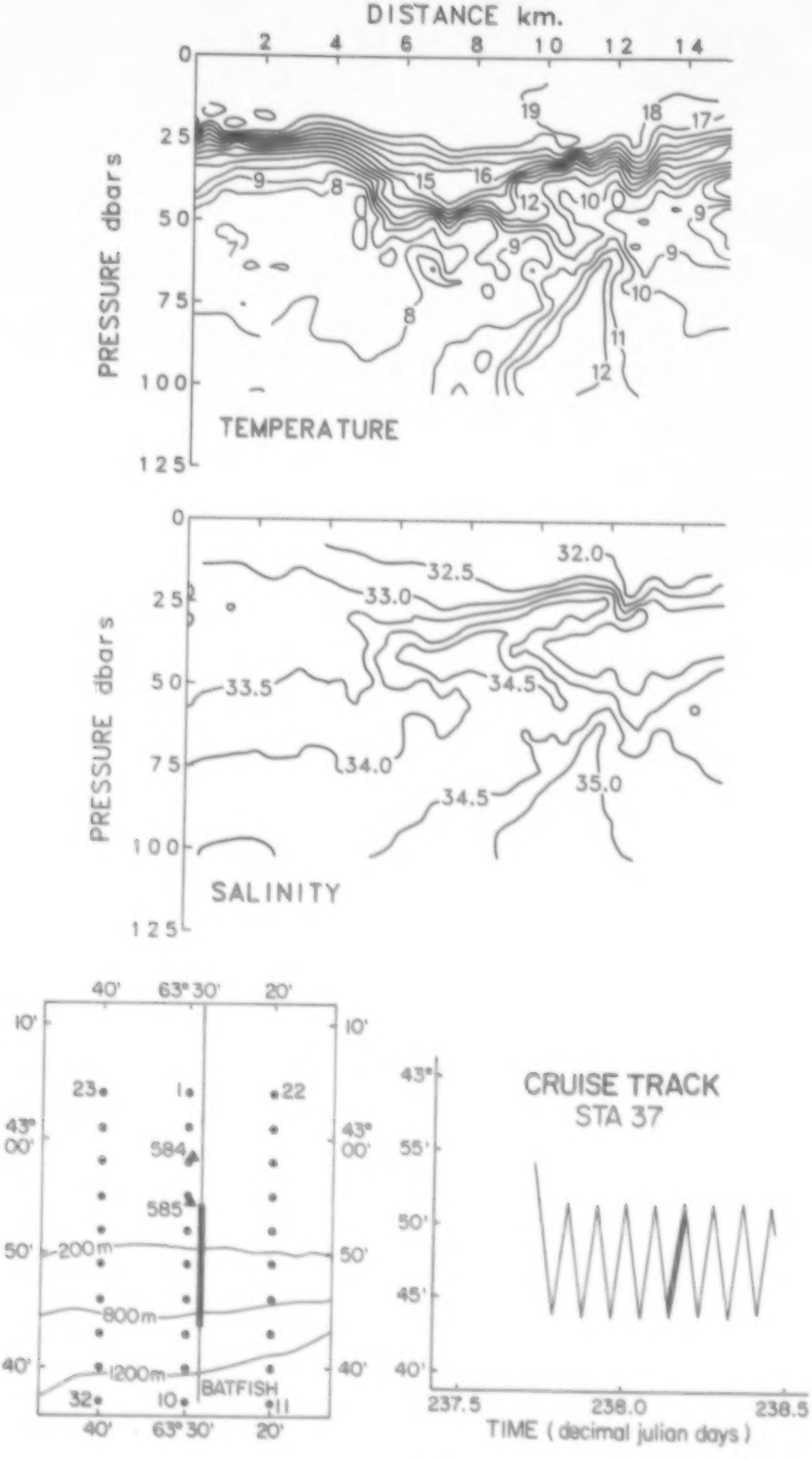

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
19
18
17
9
8
15
16
12
10
9
9
9
10
8
11
12
TEMPERATURE
32.5
32.0
33.0
33.5
34.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 37
43°
55'
45'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 174

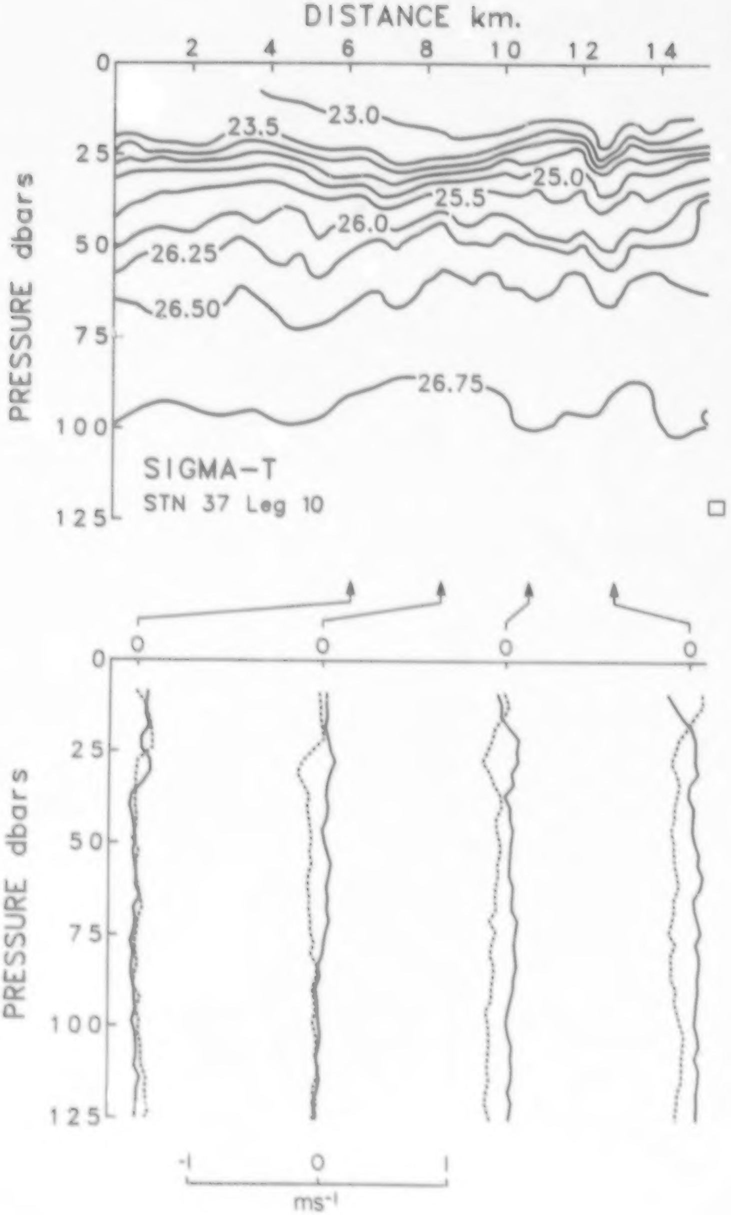

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 10
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 175

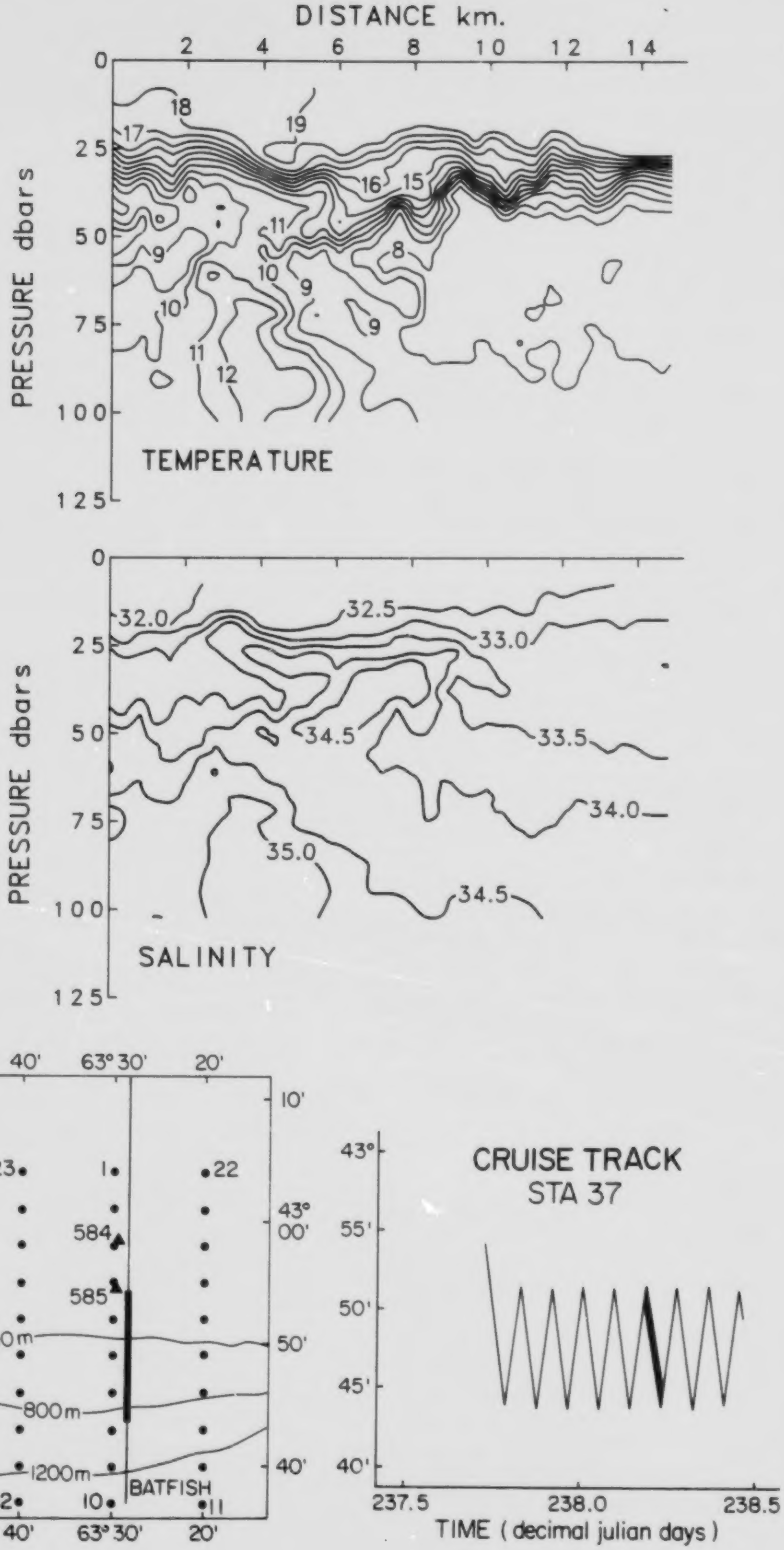

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
19
16
15
11
9
10
9
8
10
9
11
12
TEMPERATURE
32.0
32.5
33.0
34.5
33.5
34.0
35.0
34.5
SALINITY
40'
63°30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 176

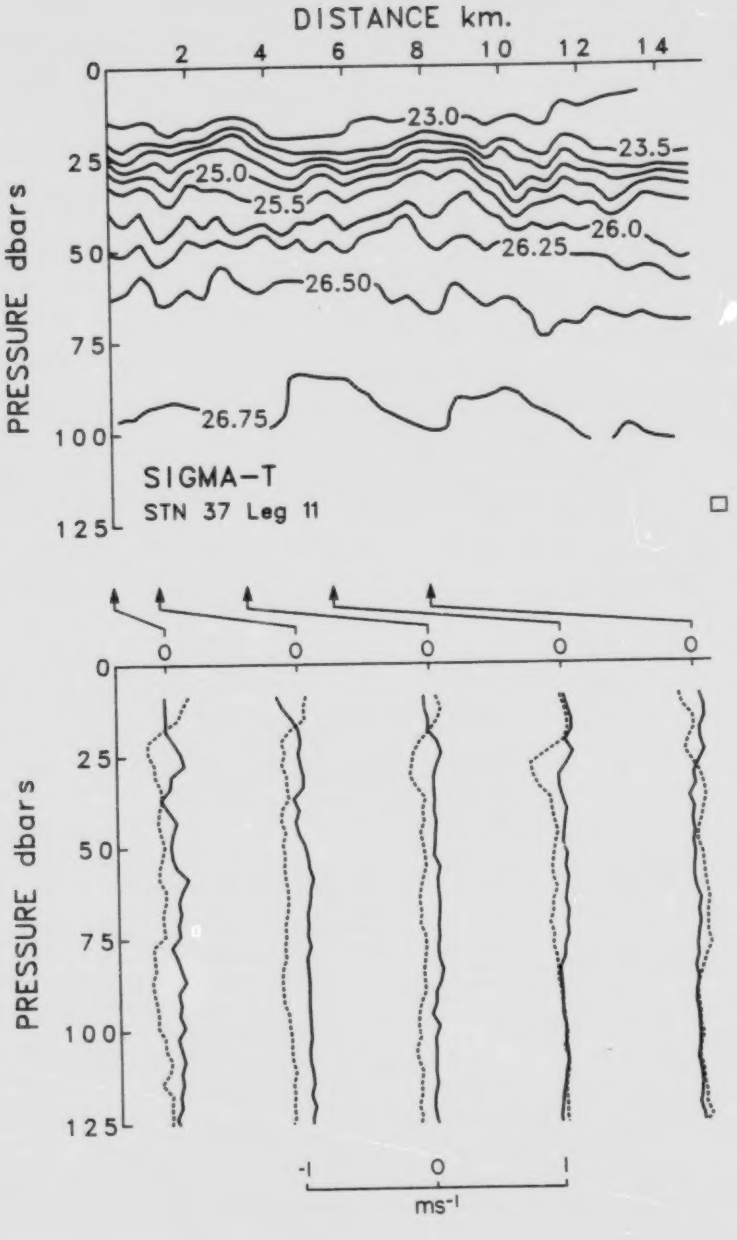

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 11
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 177

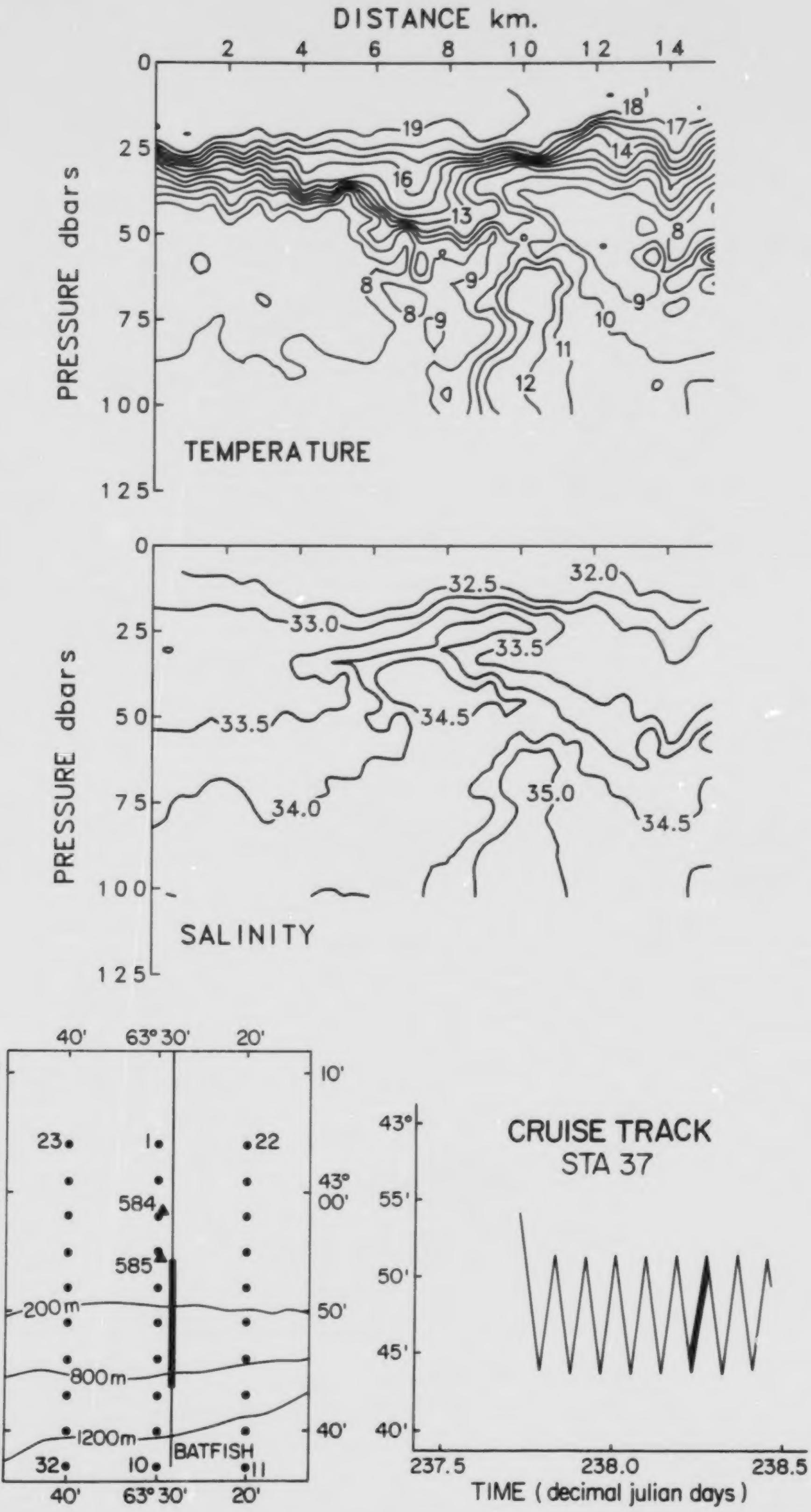

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
18
17
16
14
13
8
9
10
11
12
TEMPERATURE
32.5
32.0
33.0
33.5
34.5
34.0
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
43°
55'
50'
45'
40'
CRUISE TRACK
STA 37
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 178

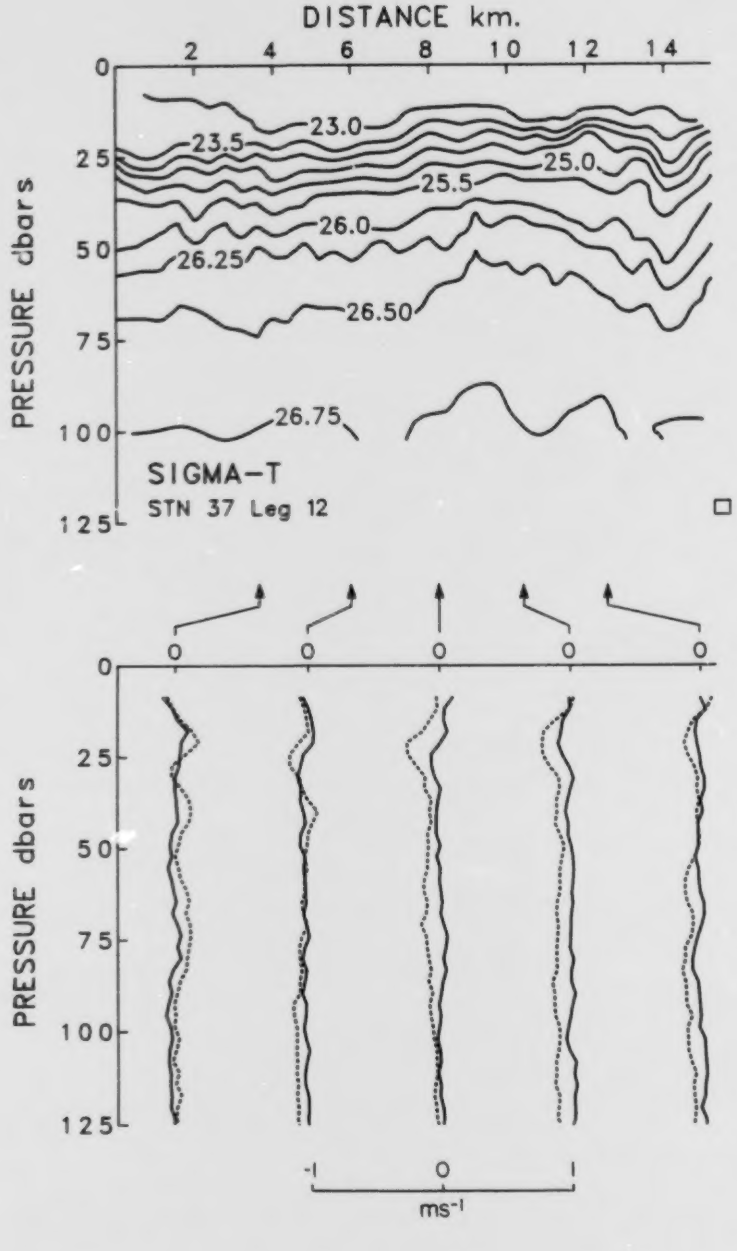

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 12
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 179

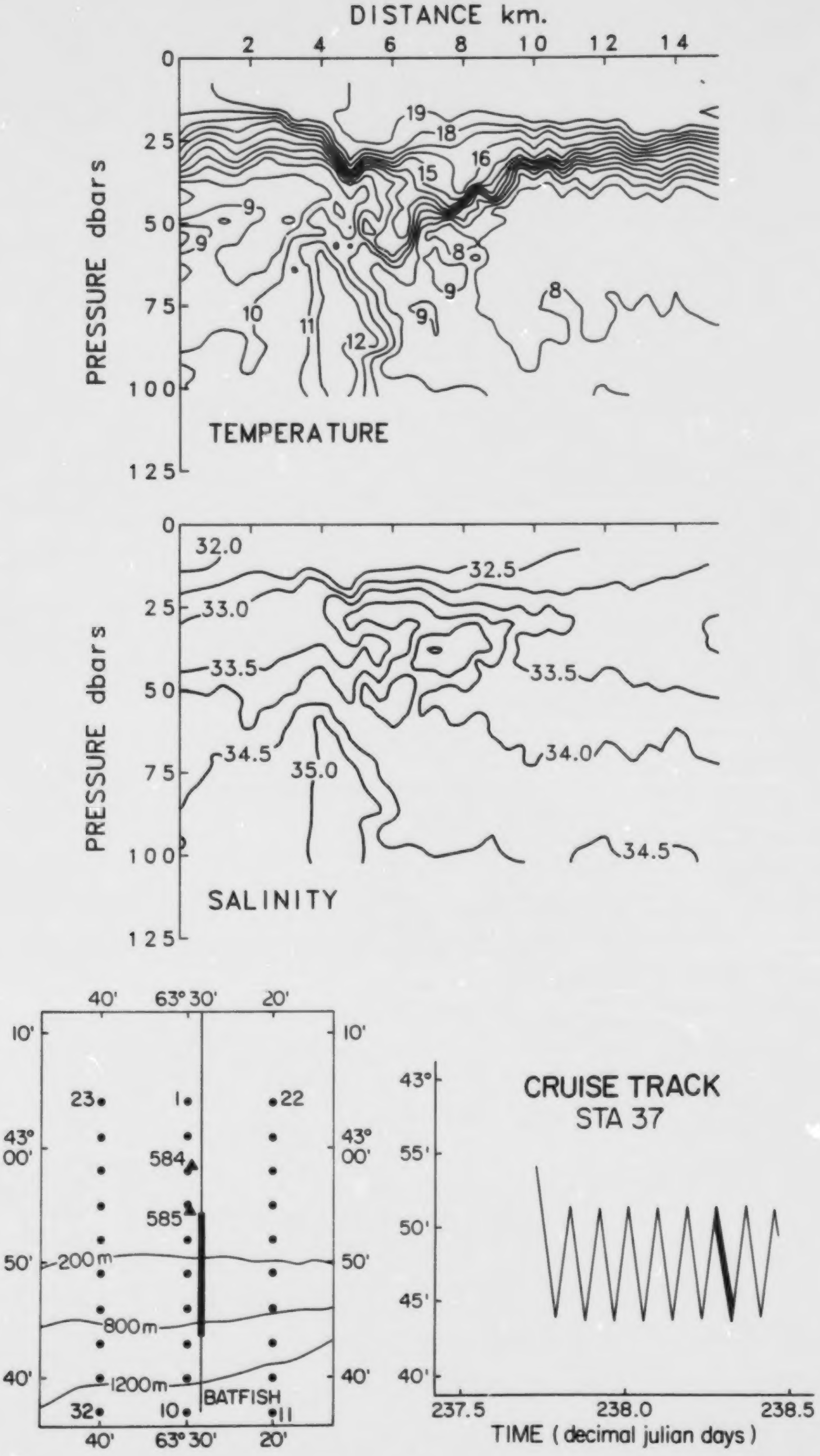

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
18
16
15
9
9
8
9
9
8
10
11
12
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
33.0
33.5
33.5
34.0
34.5
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
10'
23
1
22
43° 00'
43° 00'
584
585
50'
50'
200m
800m
1200m
40'
40'
32
10
11
BATFISH
40'
63° 30'
20'
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 180

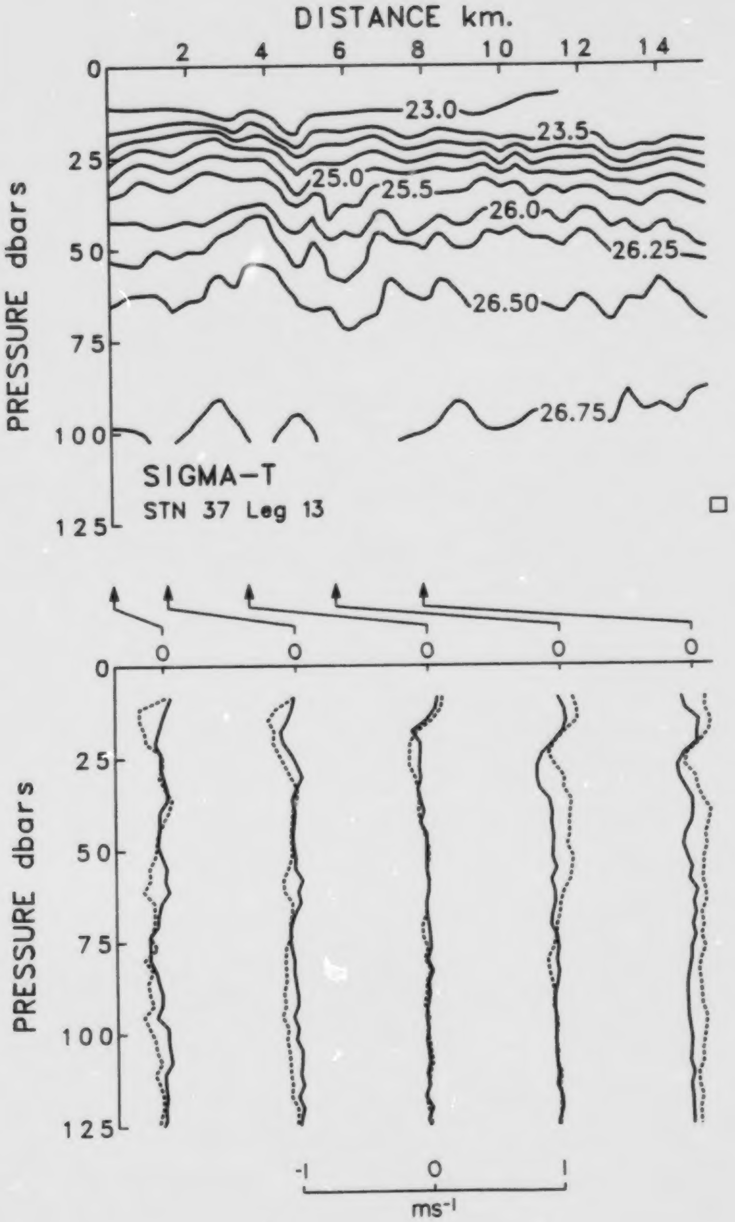

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 13
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 181

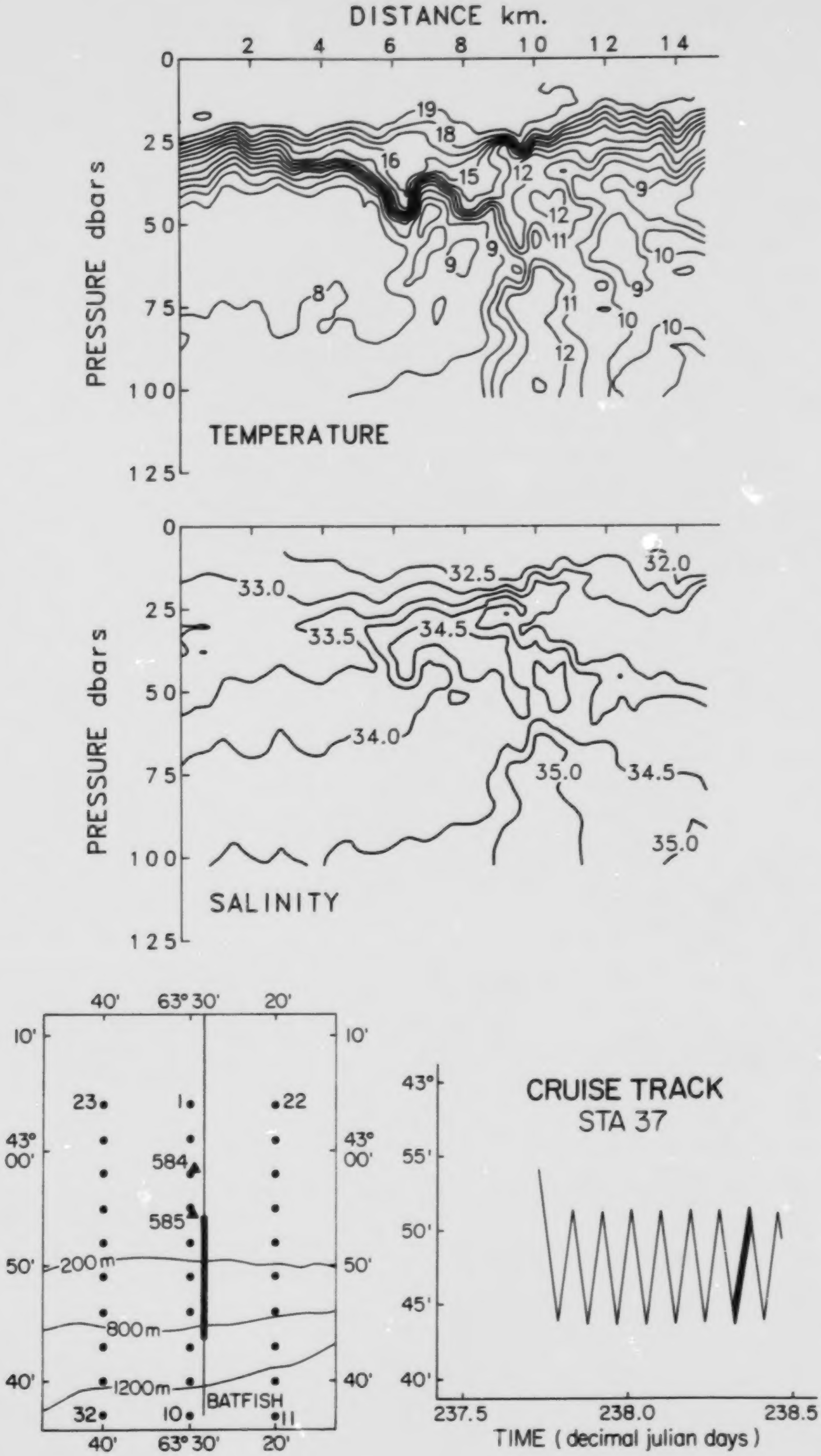

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
18
16
15
12
9
12
11
10
9
8
11
12
10
10
TEMPERATURE
33.0
32.5
32.0
33.5
34.5
34.0
35.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 182

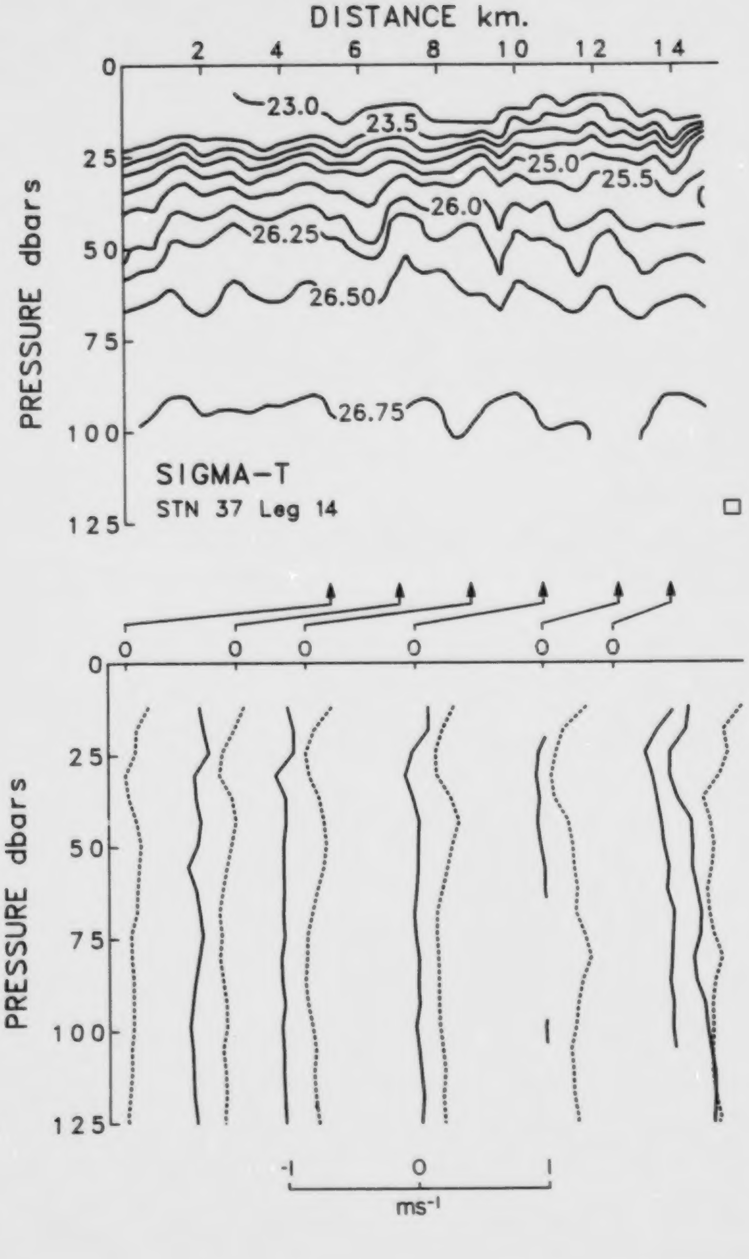

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 14
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 183

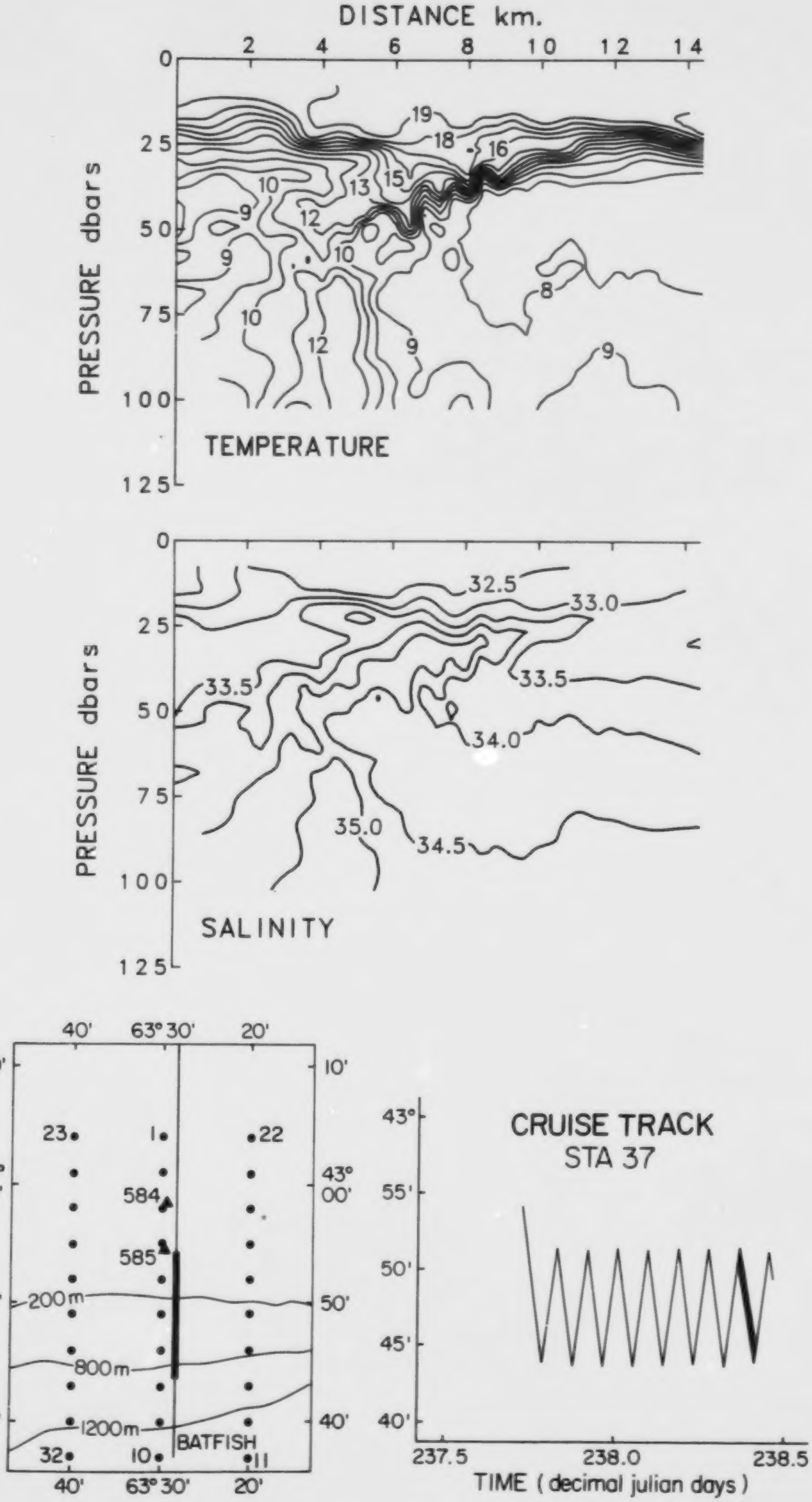

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
18
16
15
13
12
10
9
10
9
10
12
9
8
9
TEMPERATURE
32.5
33.0
33.5
33.5
34.0
35.0
34.5
PRESSURE dbars
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 184

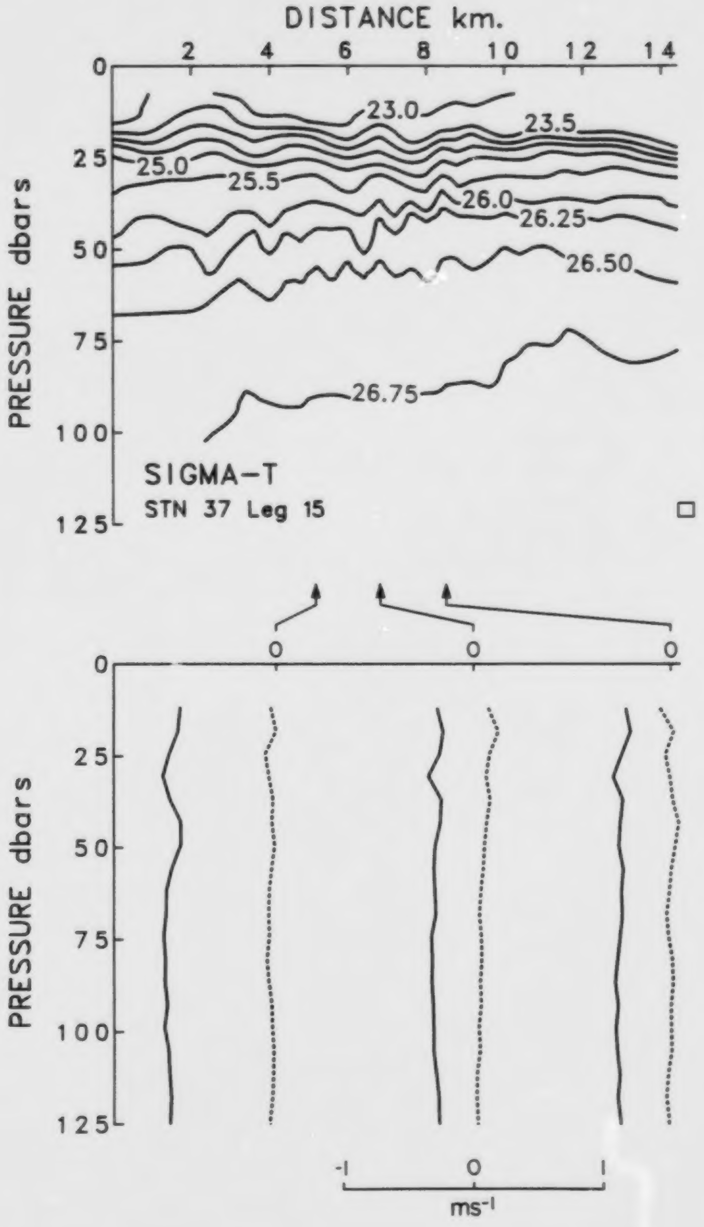

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 15
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 185

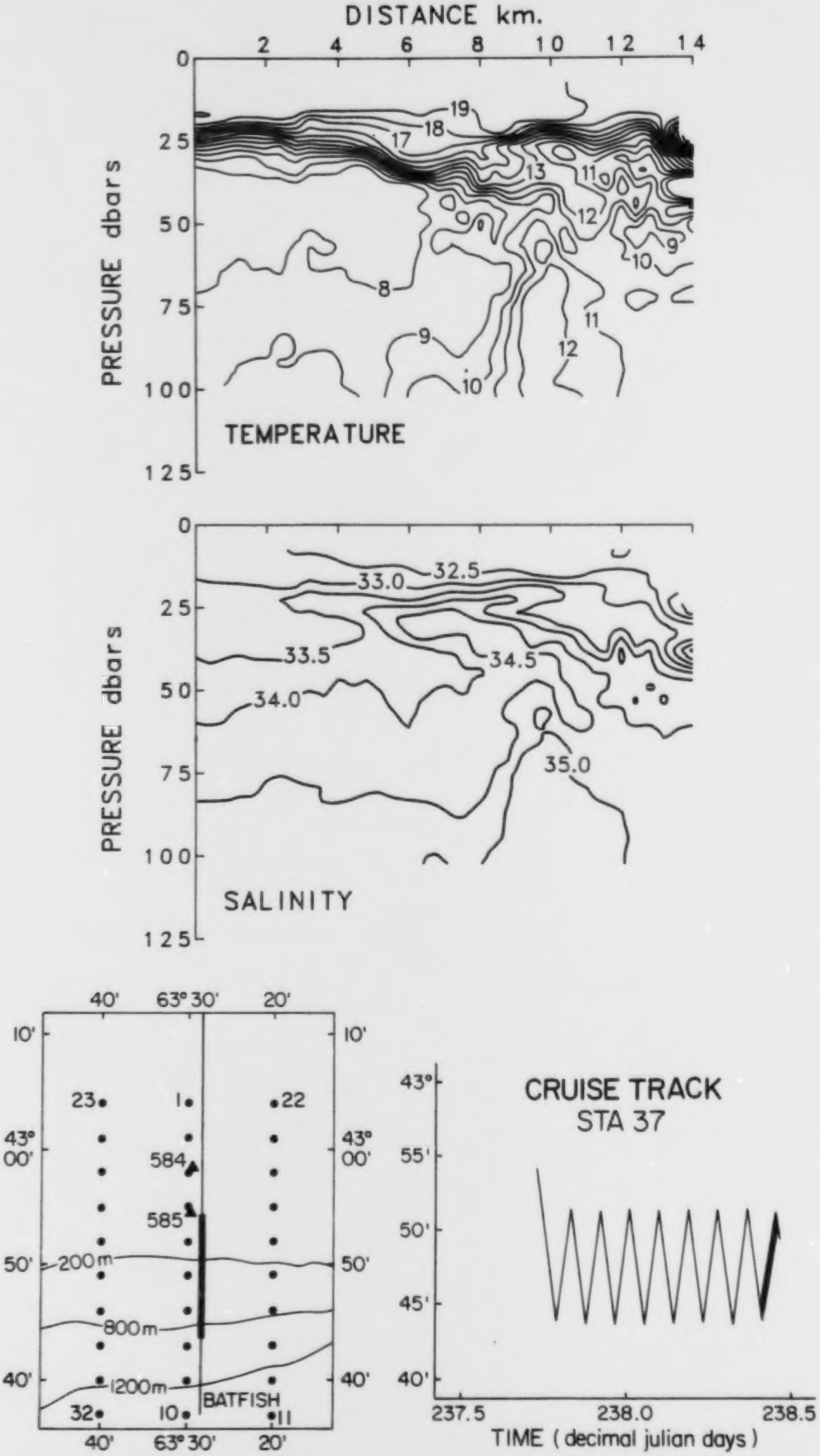

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
19
18
17
13
11
12
9
10
8
9
11
12
10
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.5
33.0
33.5
34.5
34.0
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 186

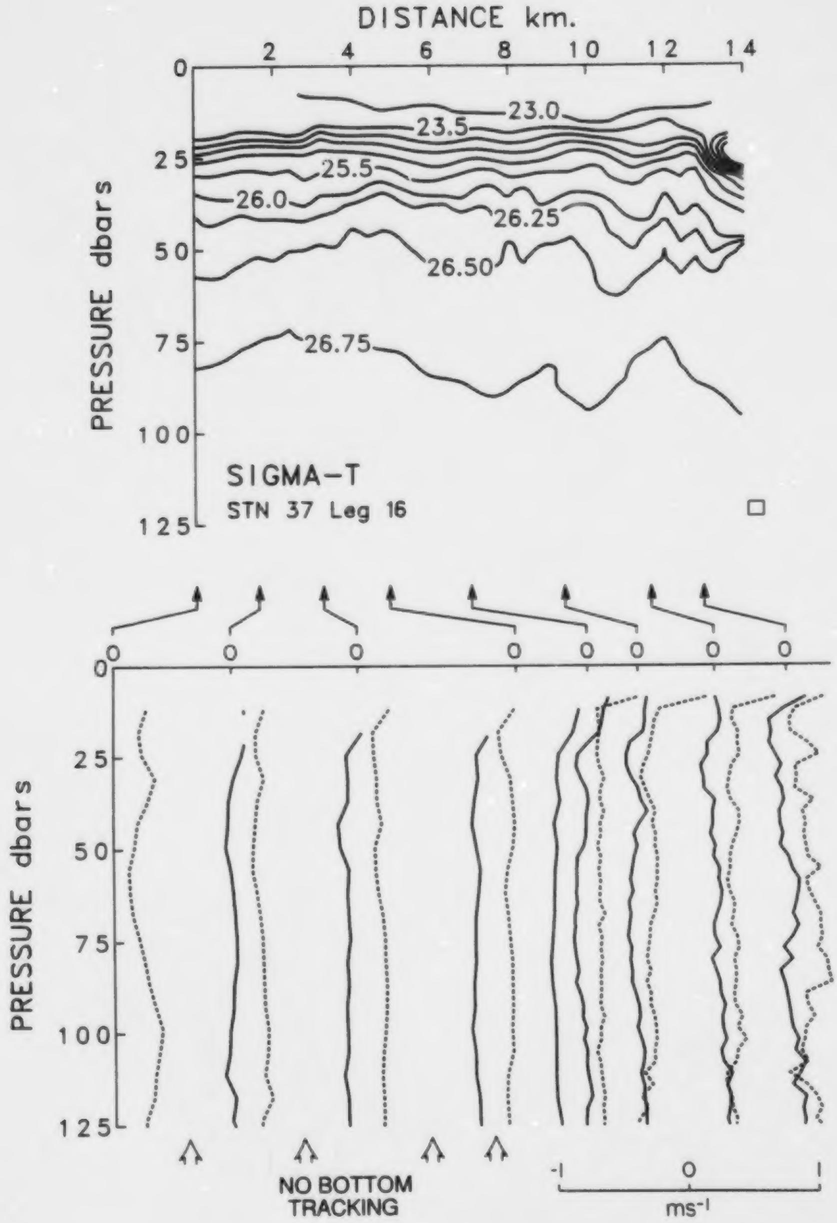

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 37 Leg 16
0
25
50
75
100
125
PRESSURE dbars
NO BOTTOM
TRACKING
-1
0
1
ms-1

Fig. 187

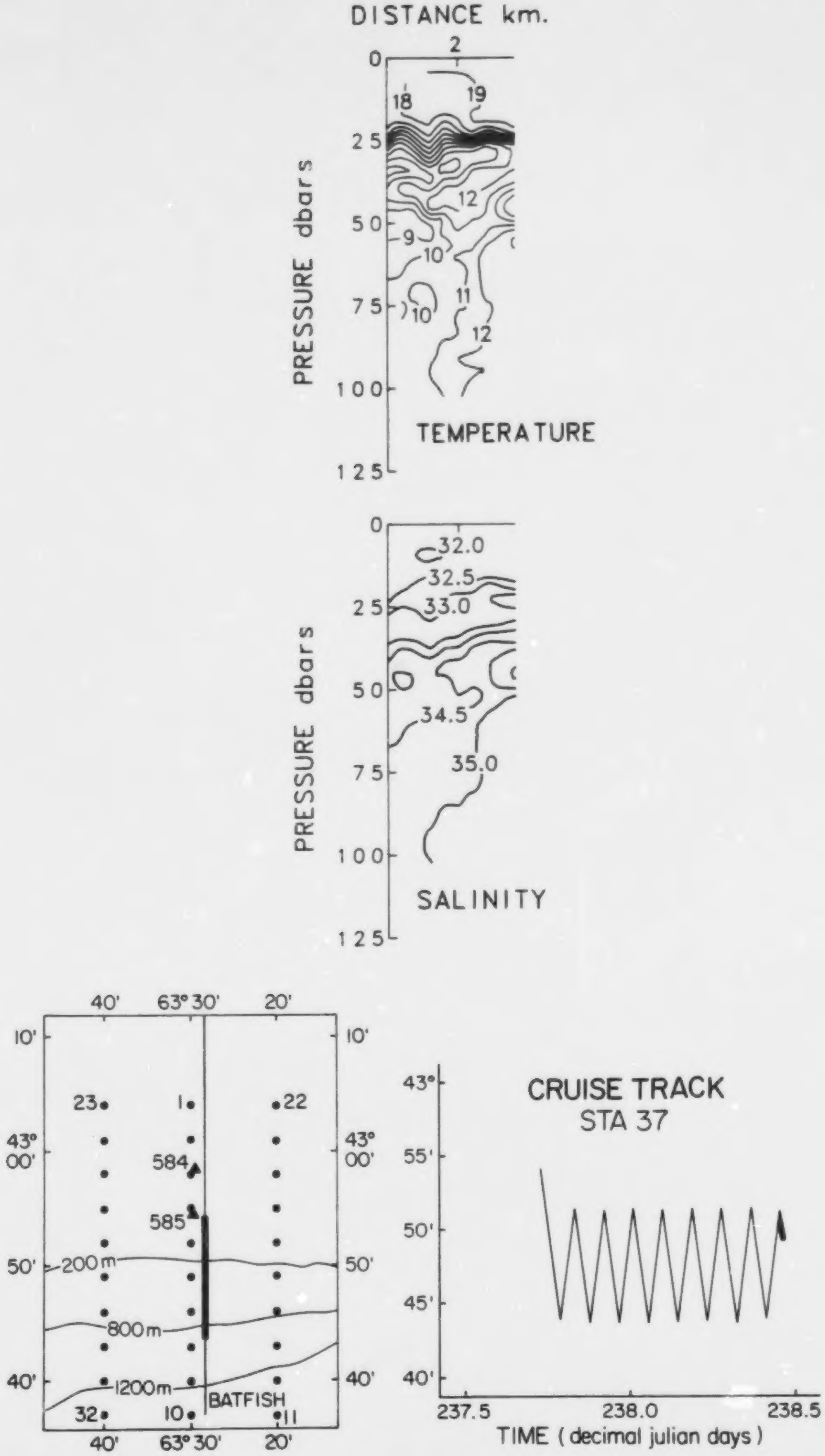

DISTANCE km.
2
PRESSURE dbars
0
25
50
75
100
125
18
19
12
9
10
10
11
12
TEMPERATURE
32.0
32.5
33.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 37
43°
55'
50'
45'
40'
237.5
238.0
238.5
TIME (decimal julian days)

Fig. 188

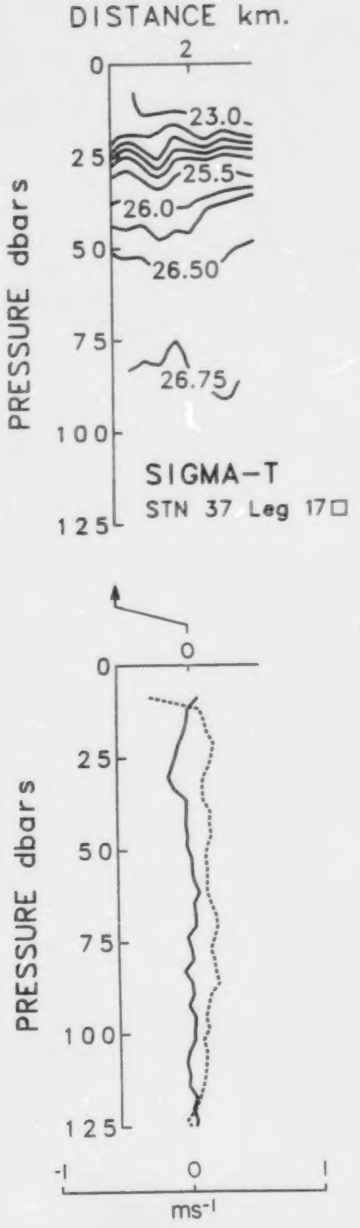

DISTANCE km.
2
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.50
26.75
SIGMA-T
STN 37 Leg 17□
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 189

Figures 190-201

BATFISH station 38; 6 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

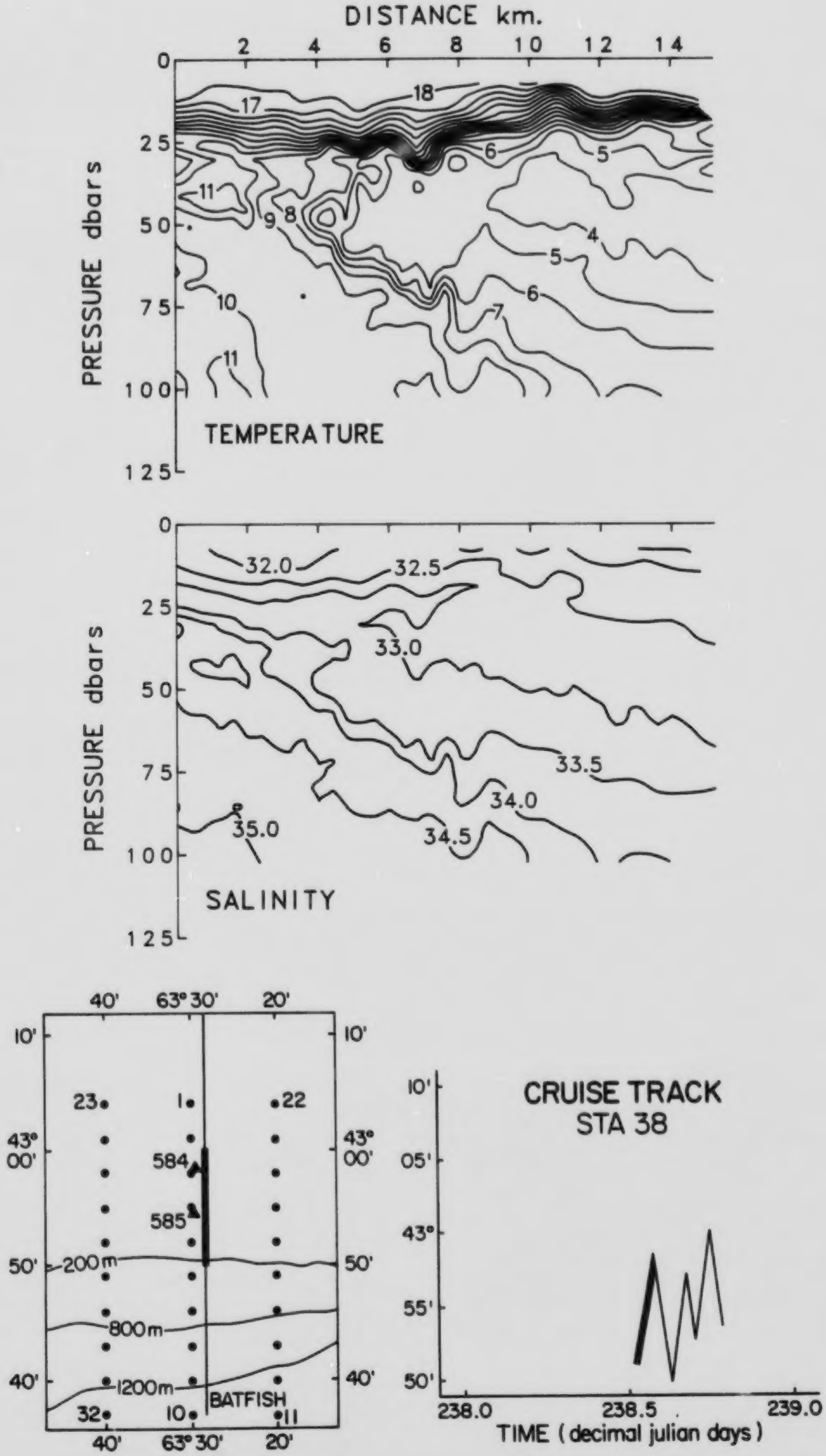

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
11
9
8
6
5
4
5
6
7
10
11
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 38
05'
43°
55'
238.0
238.5
239.0
TIME (decimal julian days)

Fig. 190

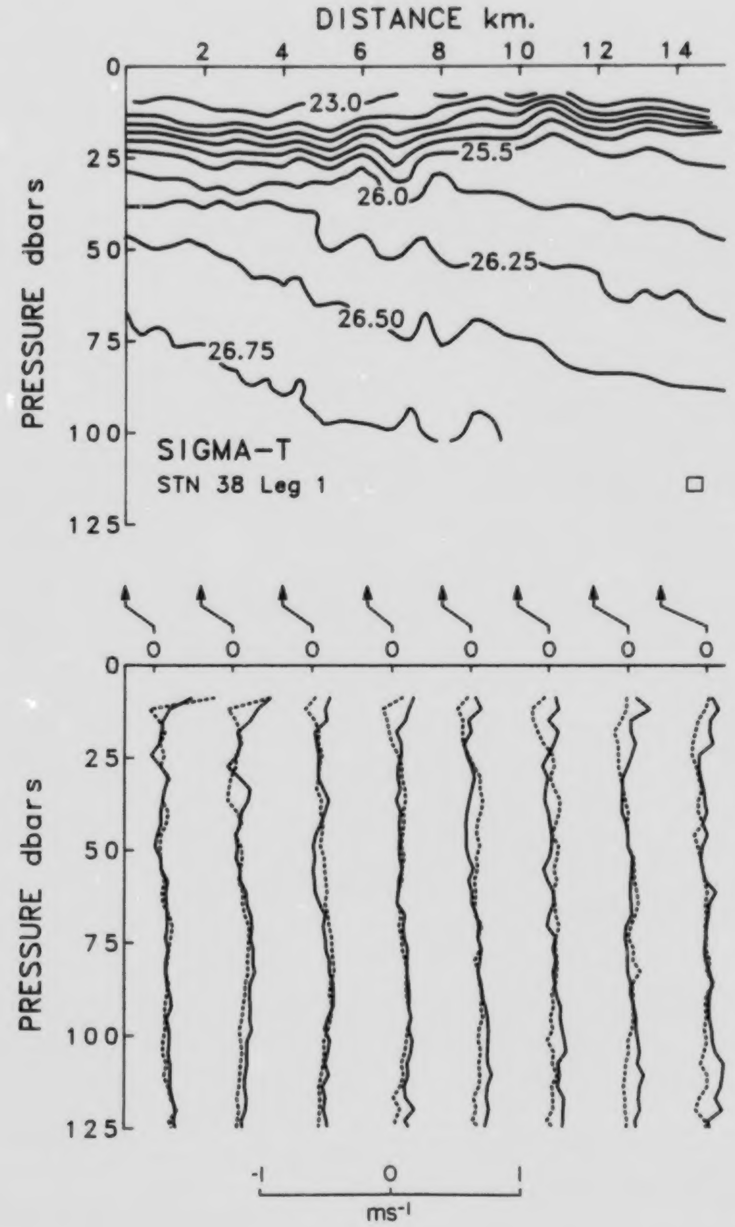

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 38 Leg 1
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 191

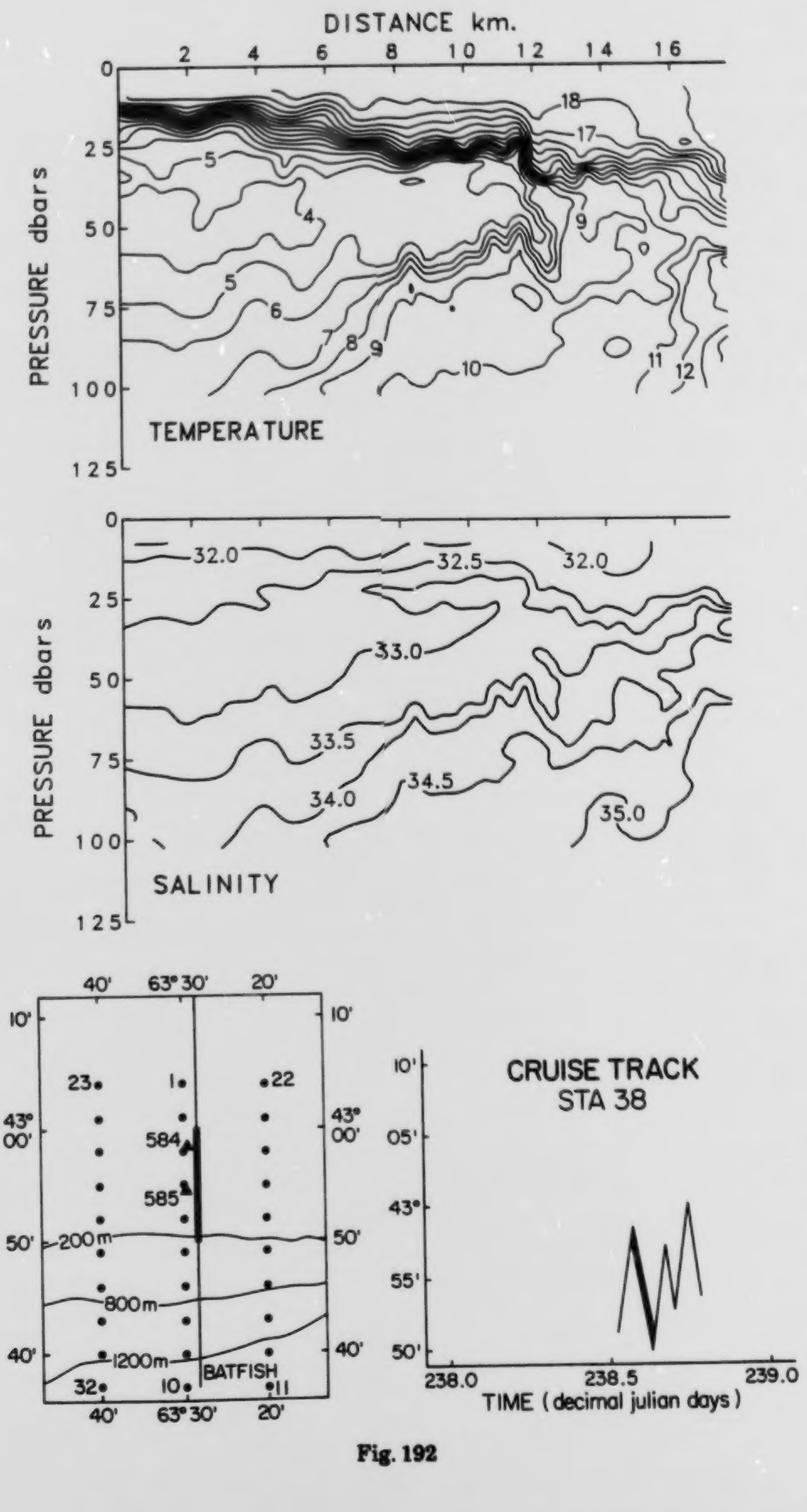

DISTANCE km.
2
4
6
8
10
12
14
16
PRESSURE dbars
0
25
50
75
100
125
18
17
5
4
9
5
6
7
8
9
10
11
12
TEMPERATURE
32.0
32.5
32.0
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 38
05'
43°
55'
238.0
238.5
239.0
TIME (decimal julian days)

Fig. 192

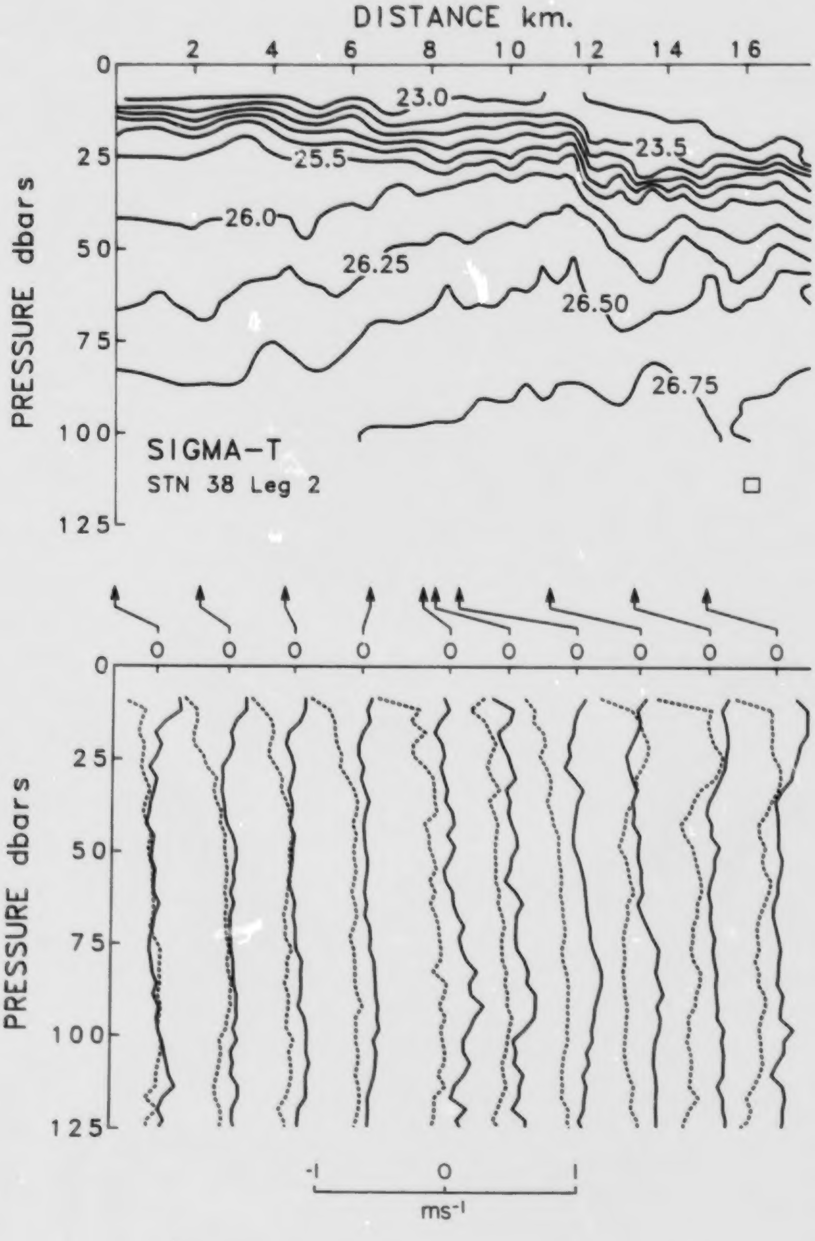

DISTANCE km.
2
4
6
8
10
12
14
16
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 38 Leg 2
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 193

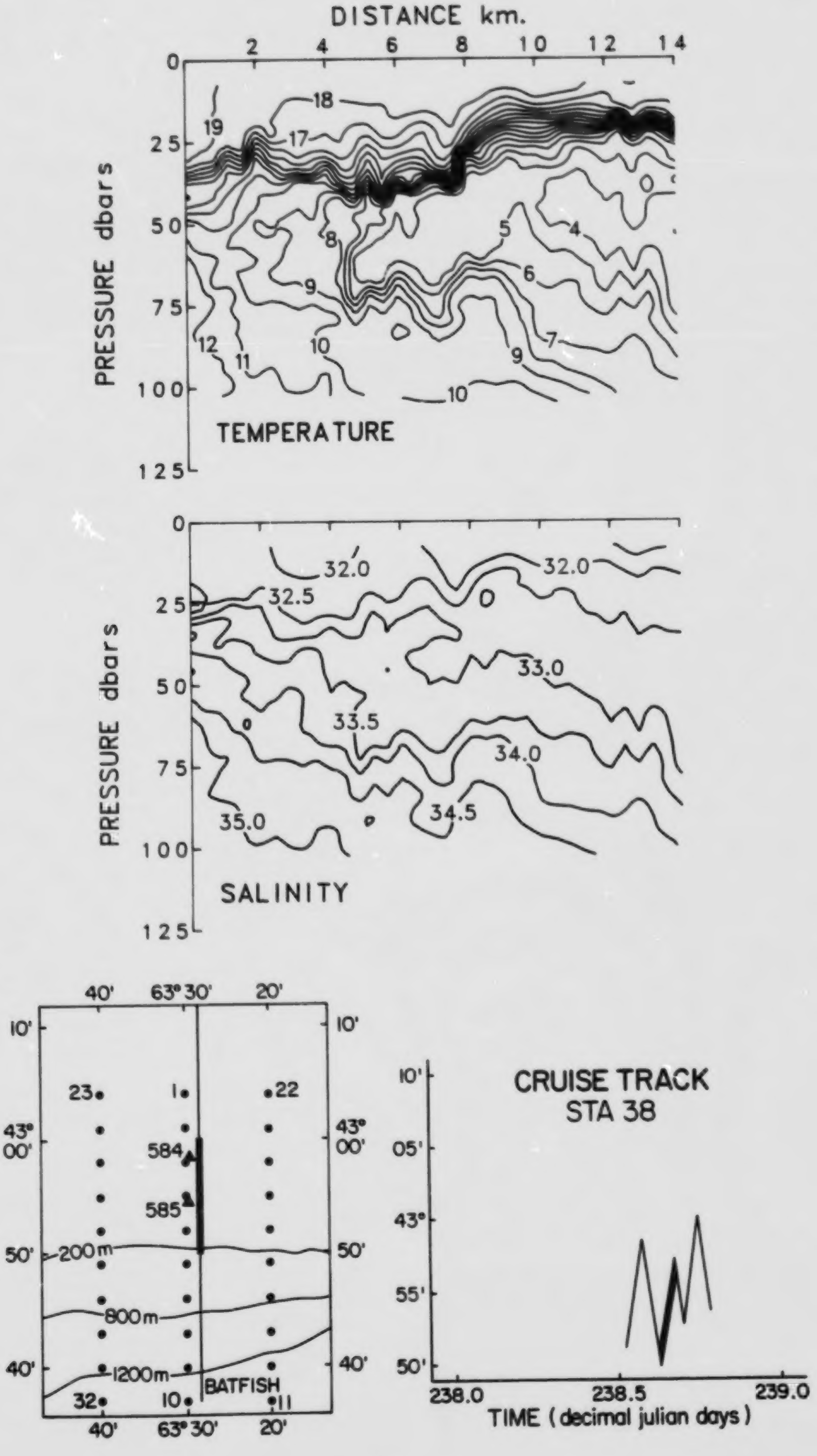

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
19
18
17
8
5
4
6
9
7
12
11
10
9
10
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
32.0
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
10'
23
1
22
43° 00'
43° 00'
584
585
50'
200m
50'
800m
40'
1200m
40'
32
10
11
BATFISH
40'
63° 30'
20'
CRUISE TRACK
STA 38
10'
05'
43°
55'
50'
238.0
238.5
239.0
TIME (decimal julian days)

Fig. 194

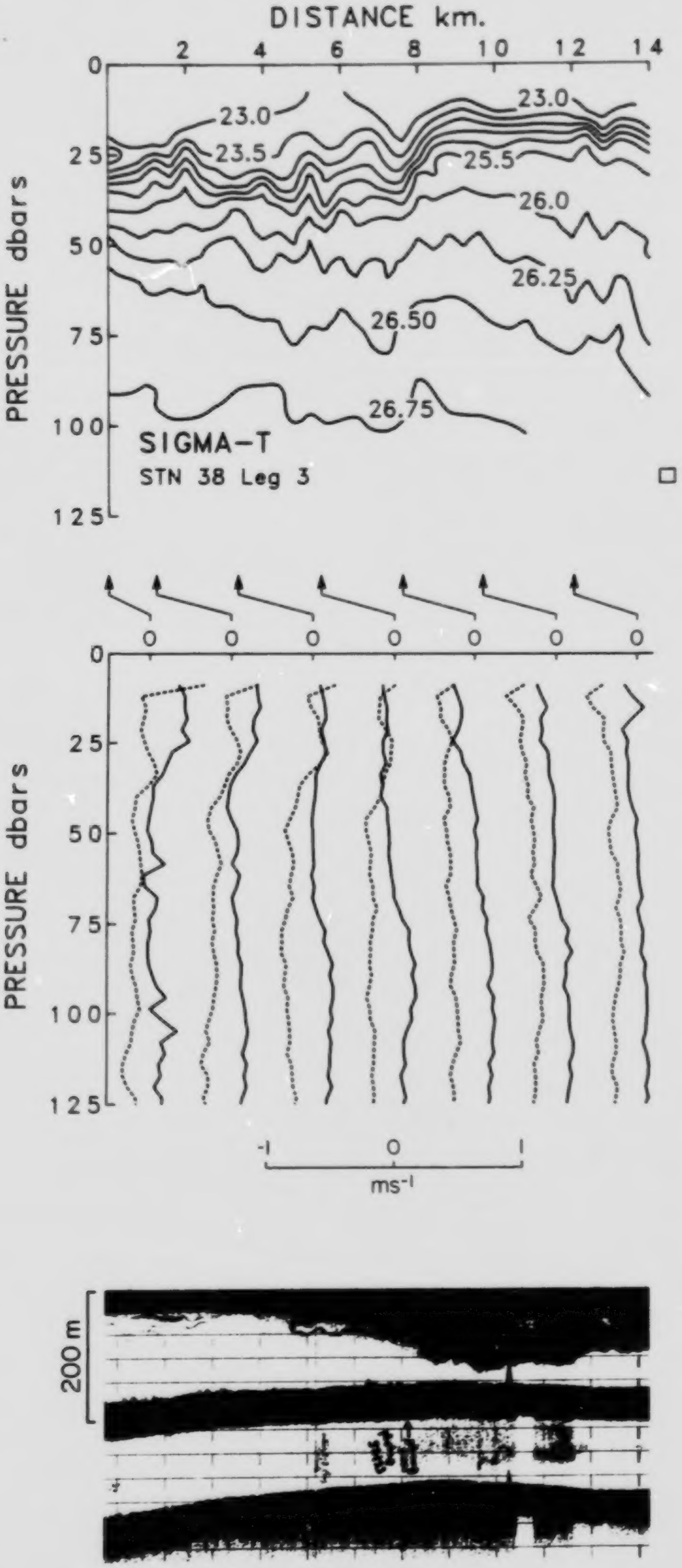

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
23.0
23.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 38 Leg 3
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 195

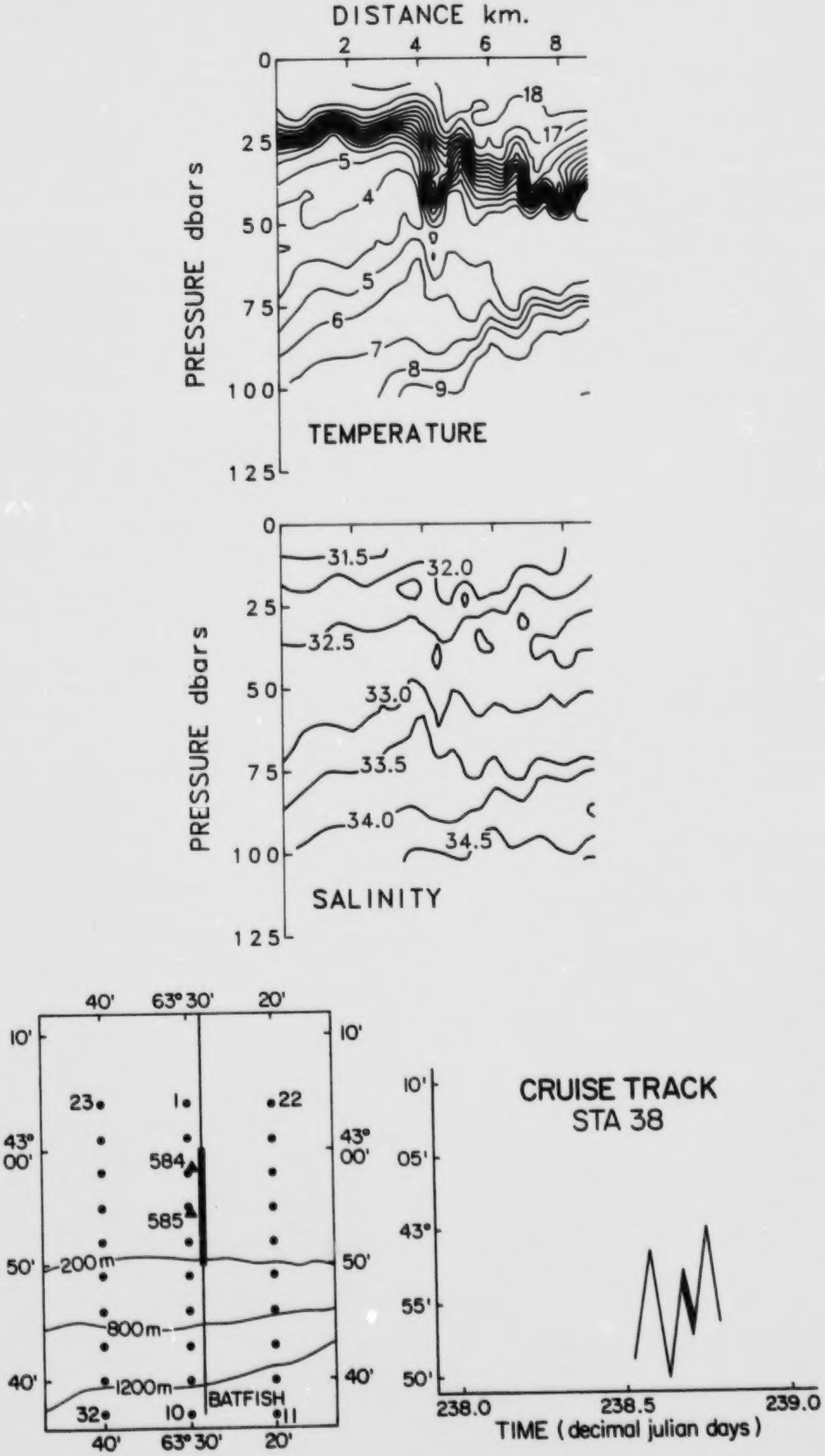

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
18
17
5
4
5
6
7
8
9
TEMPERATURE
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 38
10'
05'
43°
55'
50'
238.0
238.5
239.0
TIME (decimal julian days)

Fig. 196

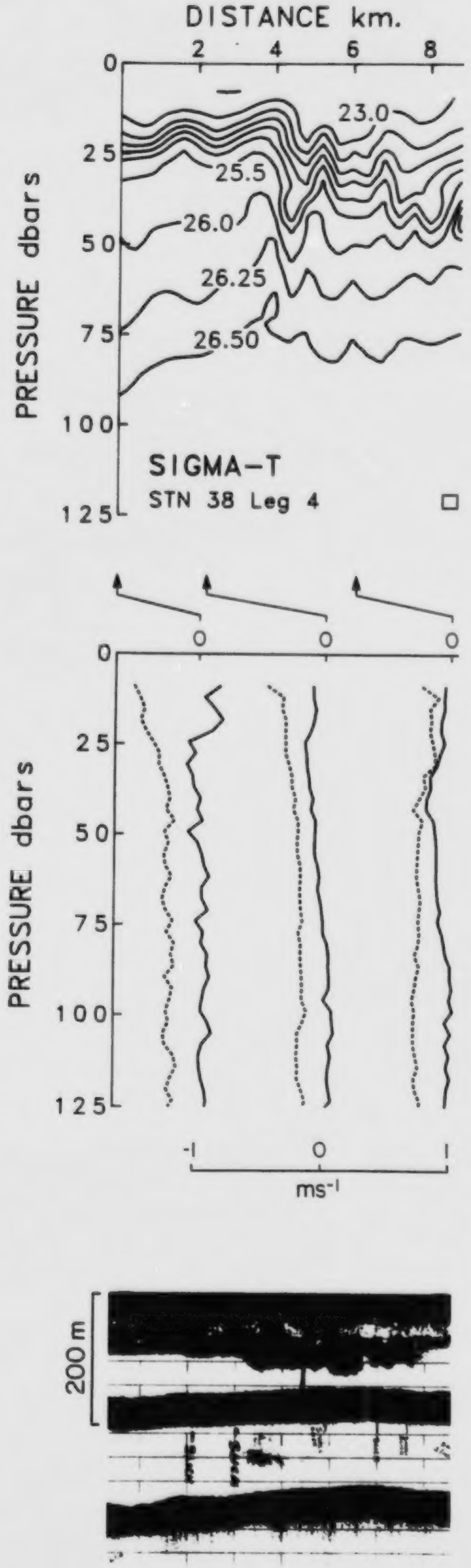

DISTANCE km.
0
2
4
6
8
23.0
25.5
26.0
26.25
26.50
25
50
75
100
125
PRESSURE dbars
SIGMA-T
STN 38 Leg 4
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 197

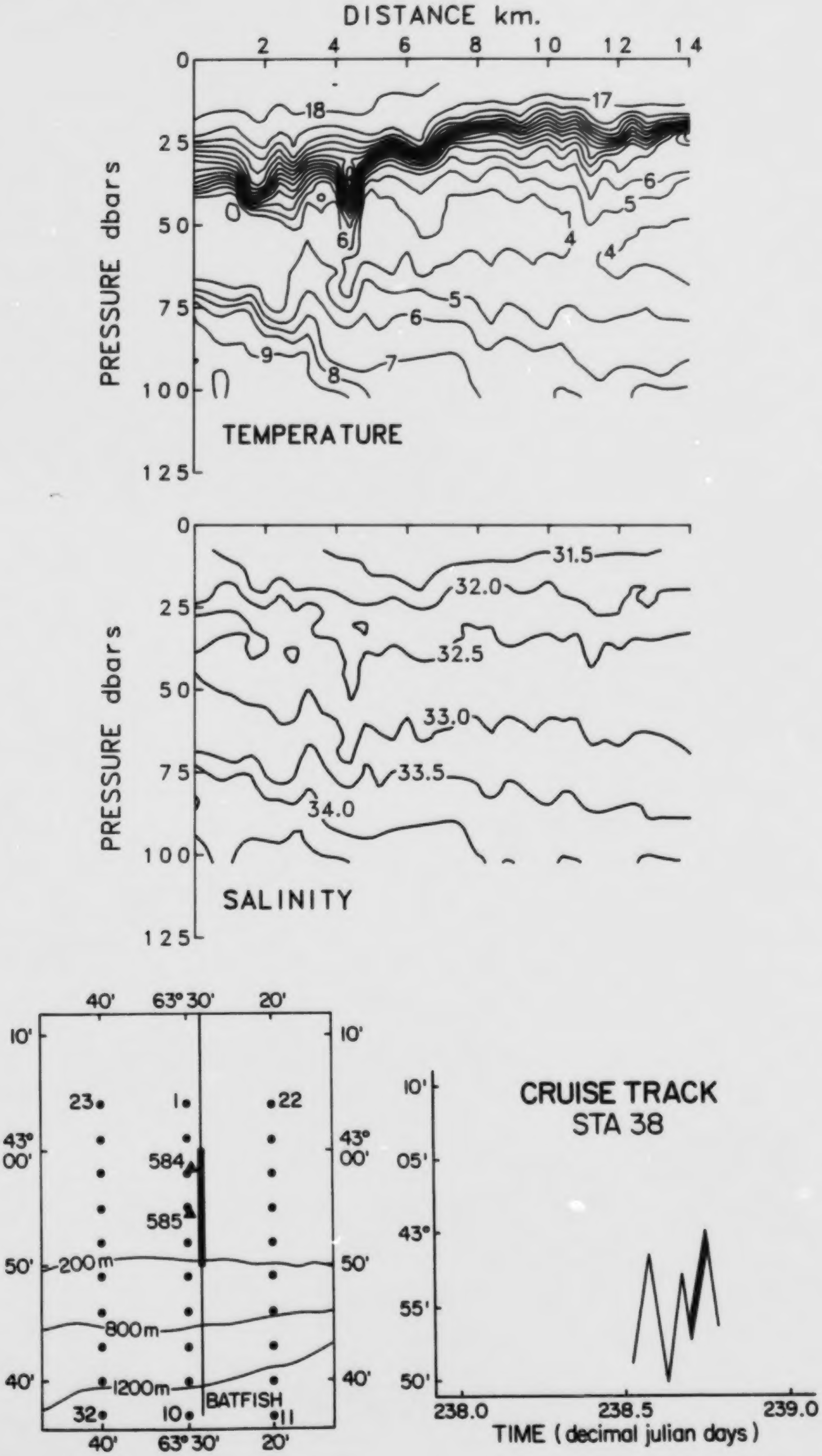

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
6
5
4
4
6
5
6
7
9
8
0
TEMPERATURE
31.5
32.0
32.5
33.0
33.5
34.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
200m
800m
1200m
23
1
22
584
585
32
10
11
BATFISH
CRUISE TRACK
STA 38
05'
55'
238.0
238.5
239.0
TIME (decimal julian days)

Fig. 198

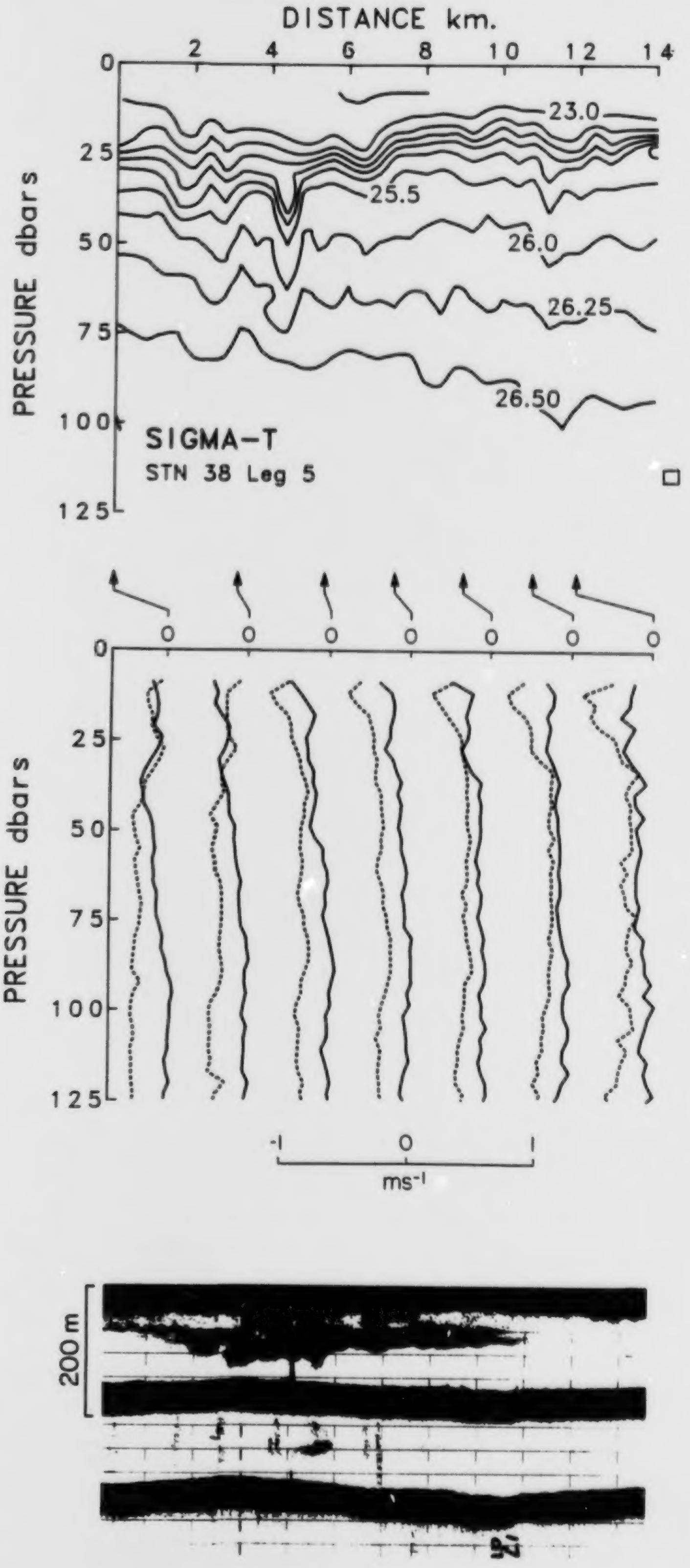

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 38 Leg 5
0
0
0
0
0
0
0
0
PRESSURE dbars
25
50
75
100
125
-1
0
1
ms-1
200 m

Fig. 199

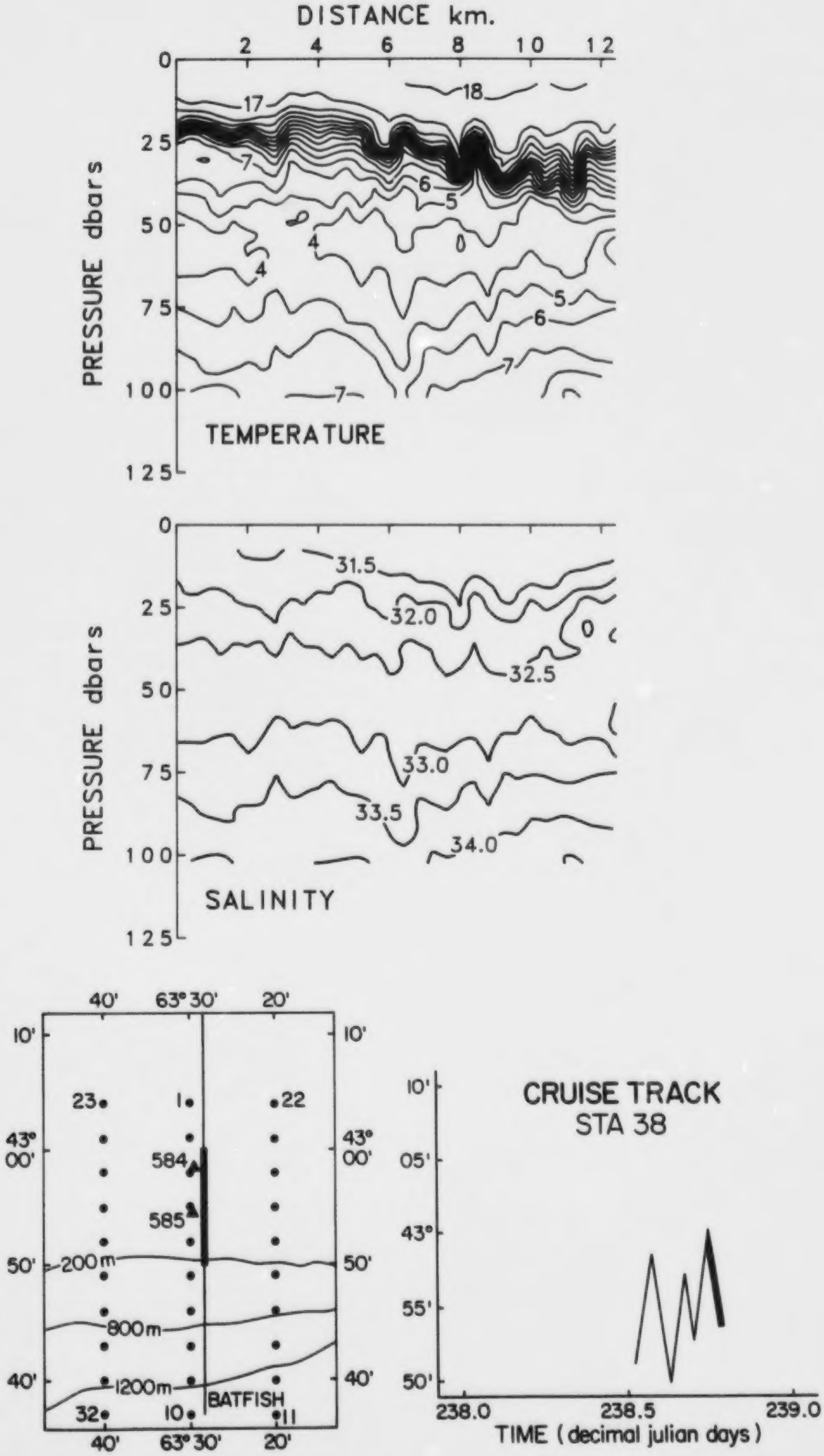

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
17
18
7
6
5
0
4
4
5
6
7
7
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
0
32.5
33.0
33.5
34.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 38
10'
05'
43°
55'
50'
238.0
238.5
239.0
TIME (decimal julian days)

Fig. 200

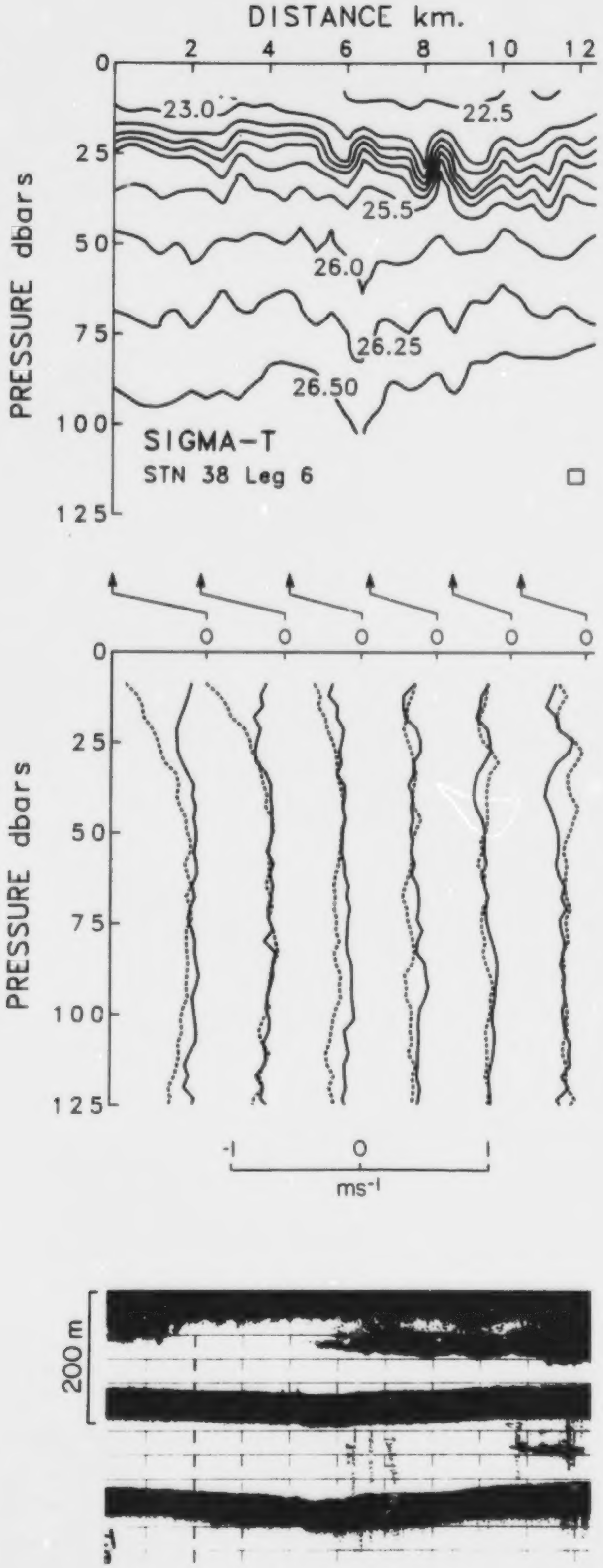

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
22.5
25.5
26.0
26.25
26.50
SIGMA-T
STN 38 Leg 6
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 201

Figures 202-229

BATFISH station 39; 14 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

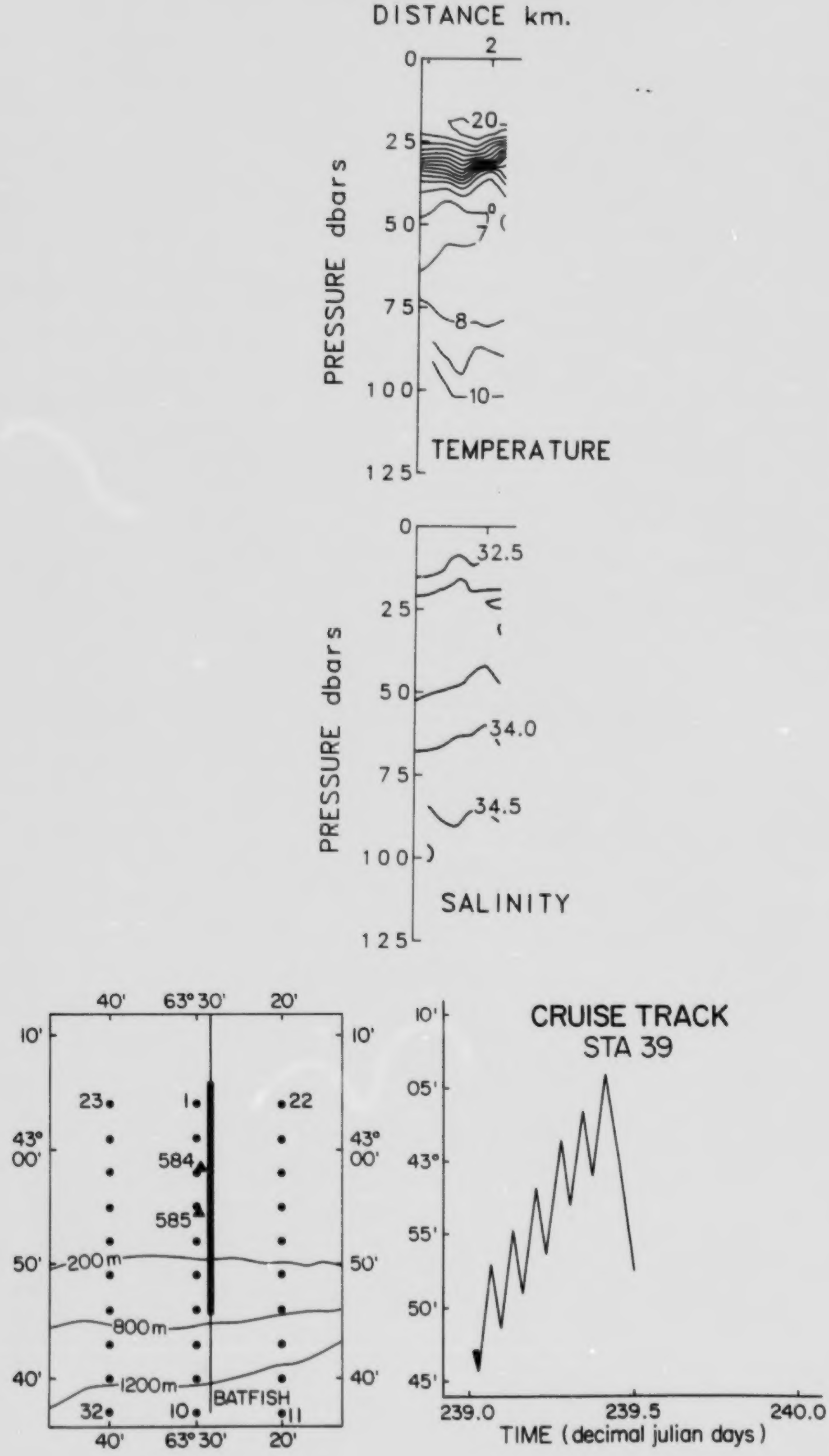

DISTANCE km.
0
2
PRESSURE dbars
0
25
50
75
100
125
20
7
8
10
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
32.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 202

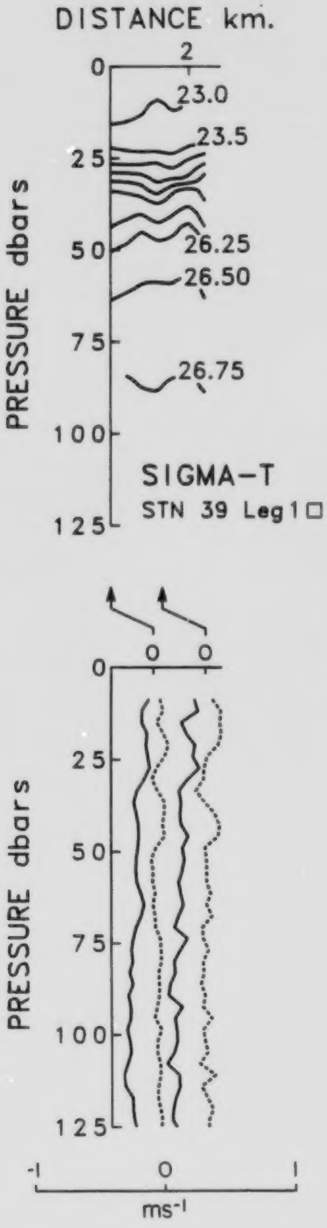

DISTANCE km.
2
0
23.0
23.5
25
26.25
26.50
50
75
26.75
100
125
PRESSURE dbars
SIGMA-T
STN 39 Leg1 □
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 203

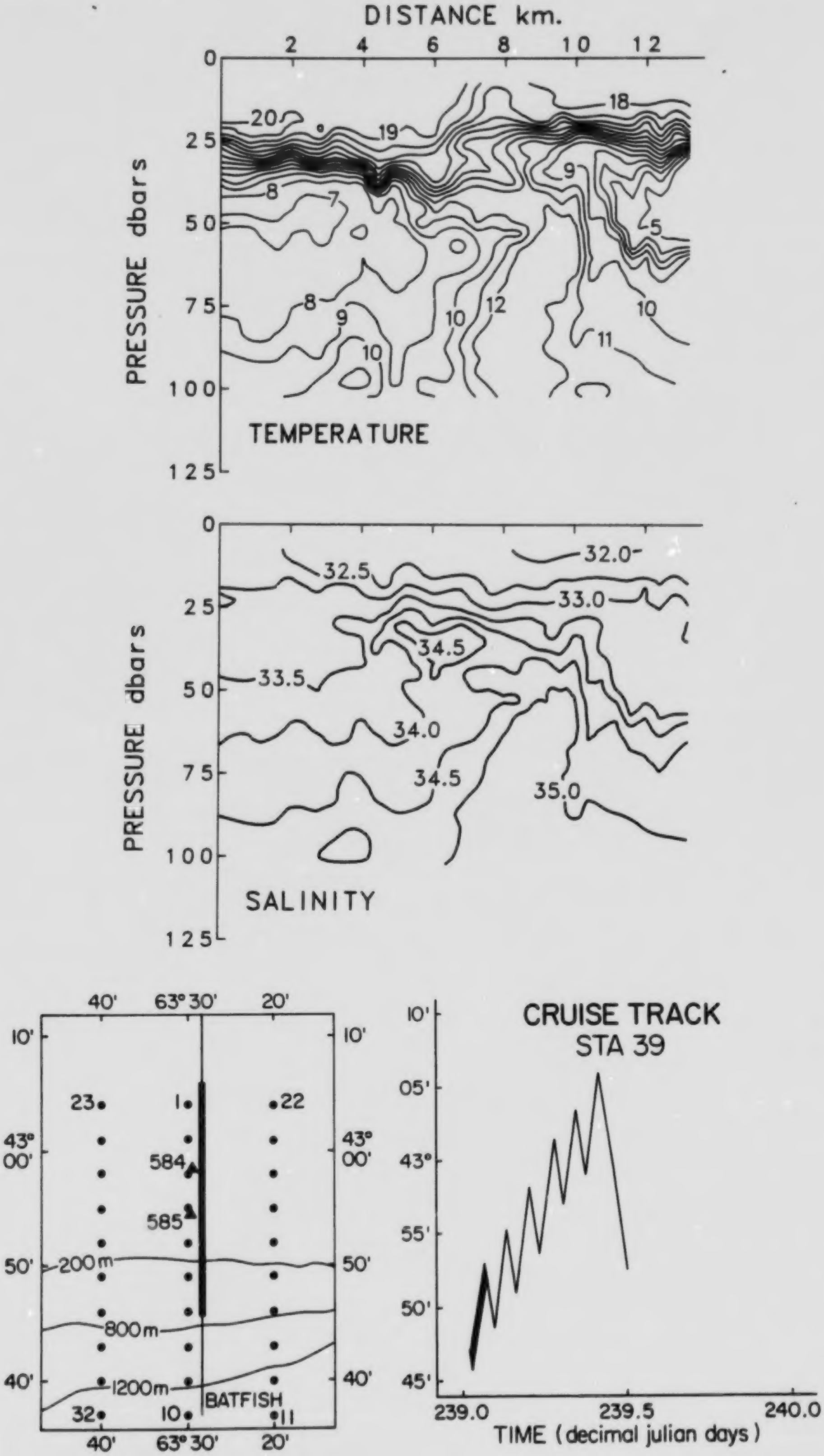

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
25
50
75
100
125
20
19
18
9
8
7
5
8
9
10
10
12
10
11
TEMPERATURE
32.5
32.0
33.0
34.5
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
05'
43°
55'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 204

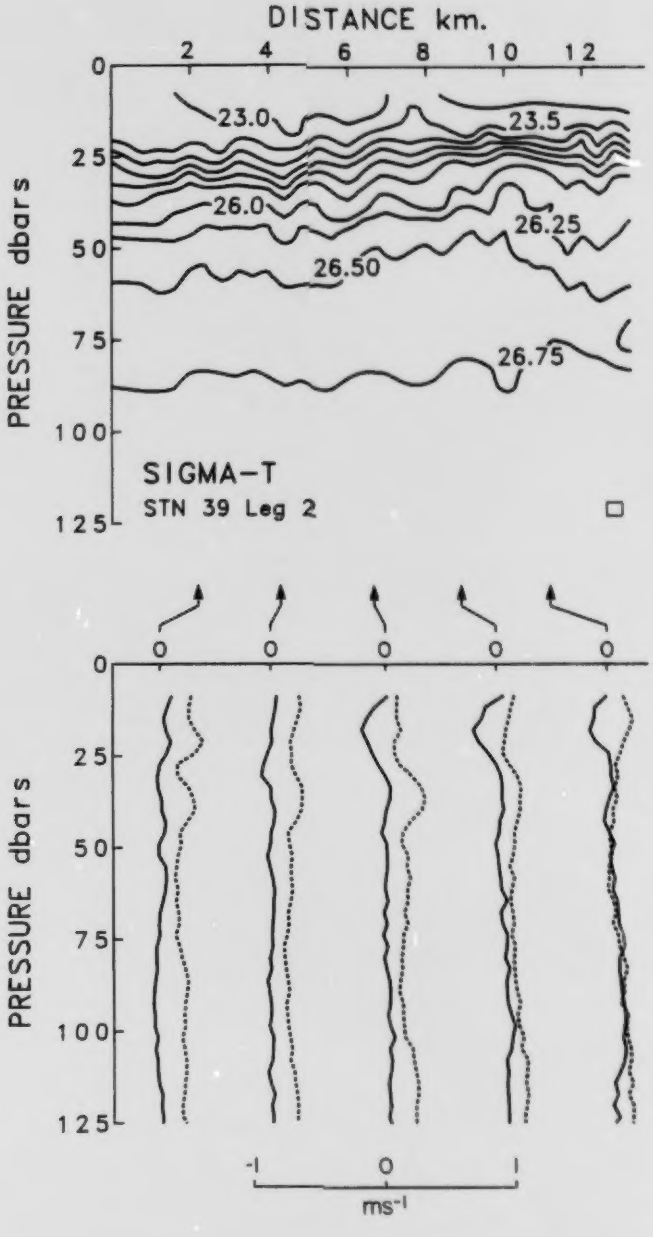

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 39 Leg 2
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 205

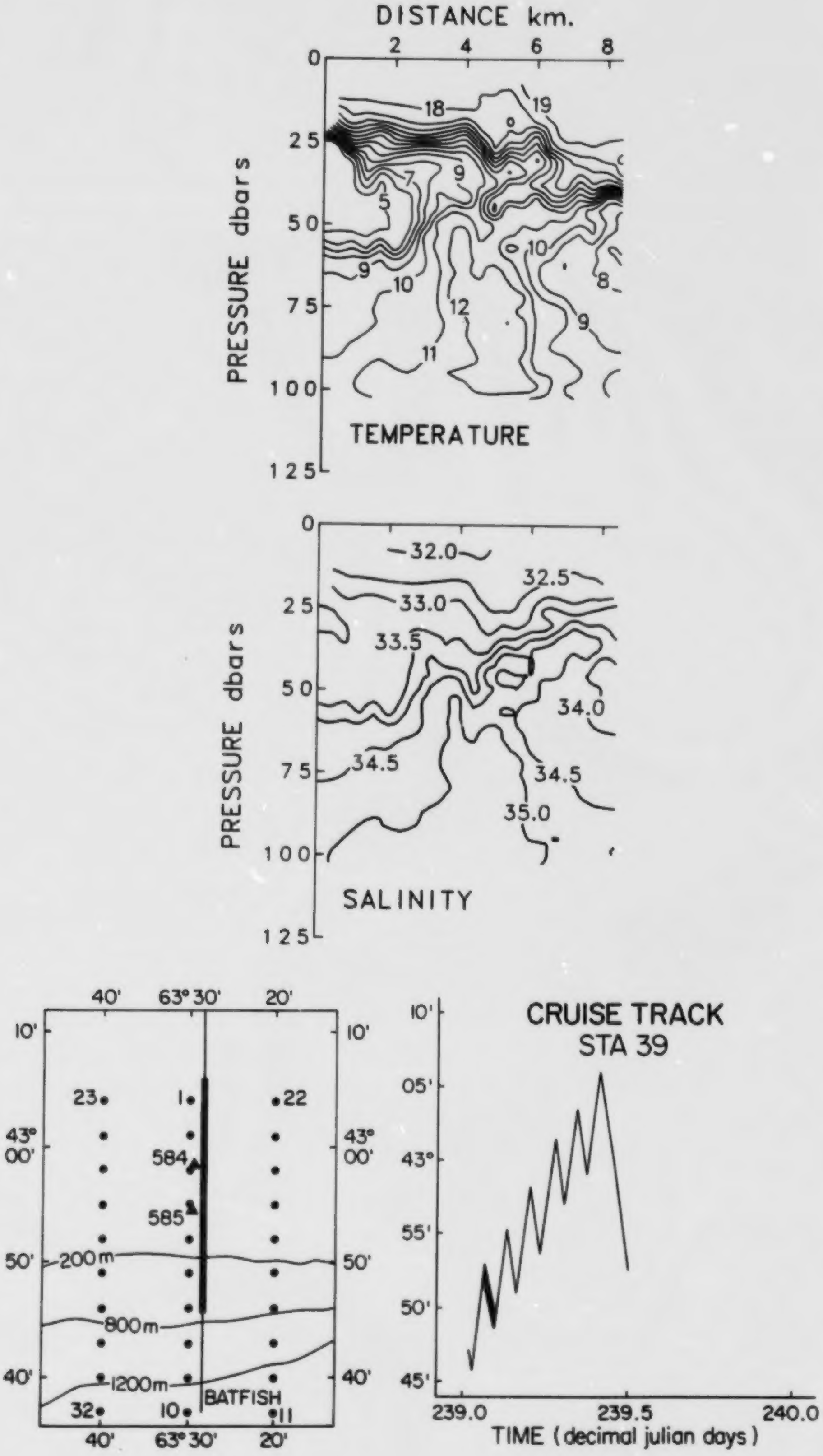

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
18
19
7
9
5
9
10
10
8
12
9
11
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
05'
43°
55'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 206

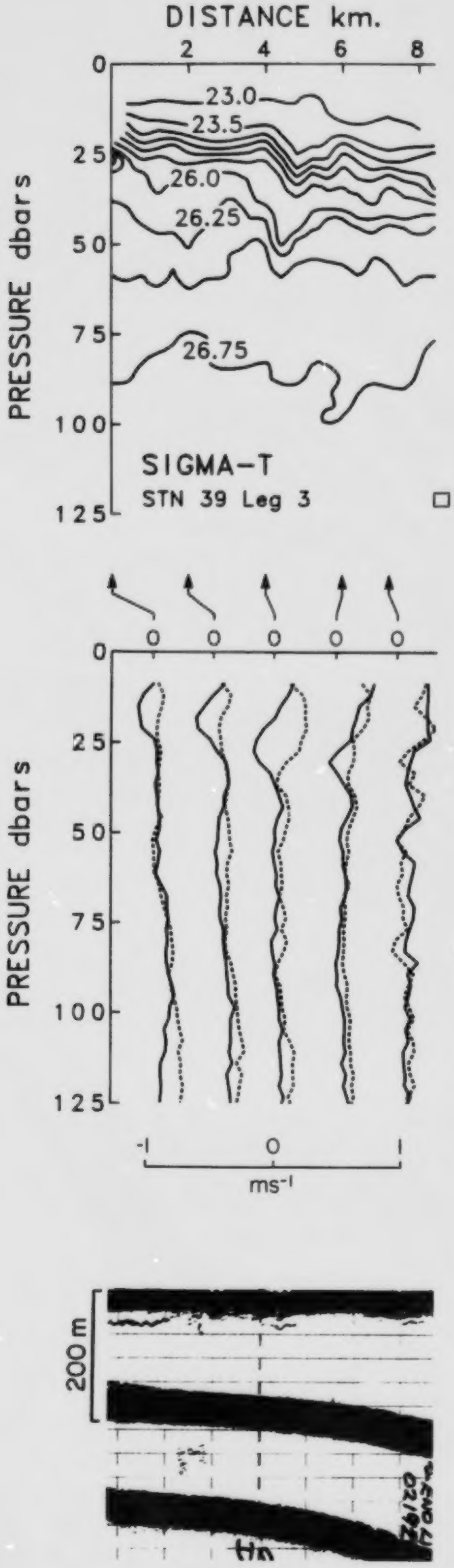

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
26.0
26.25
26.75
SIGMA-T
STN 39 Leg 3
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 207

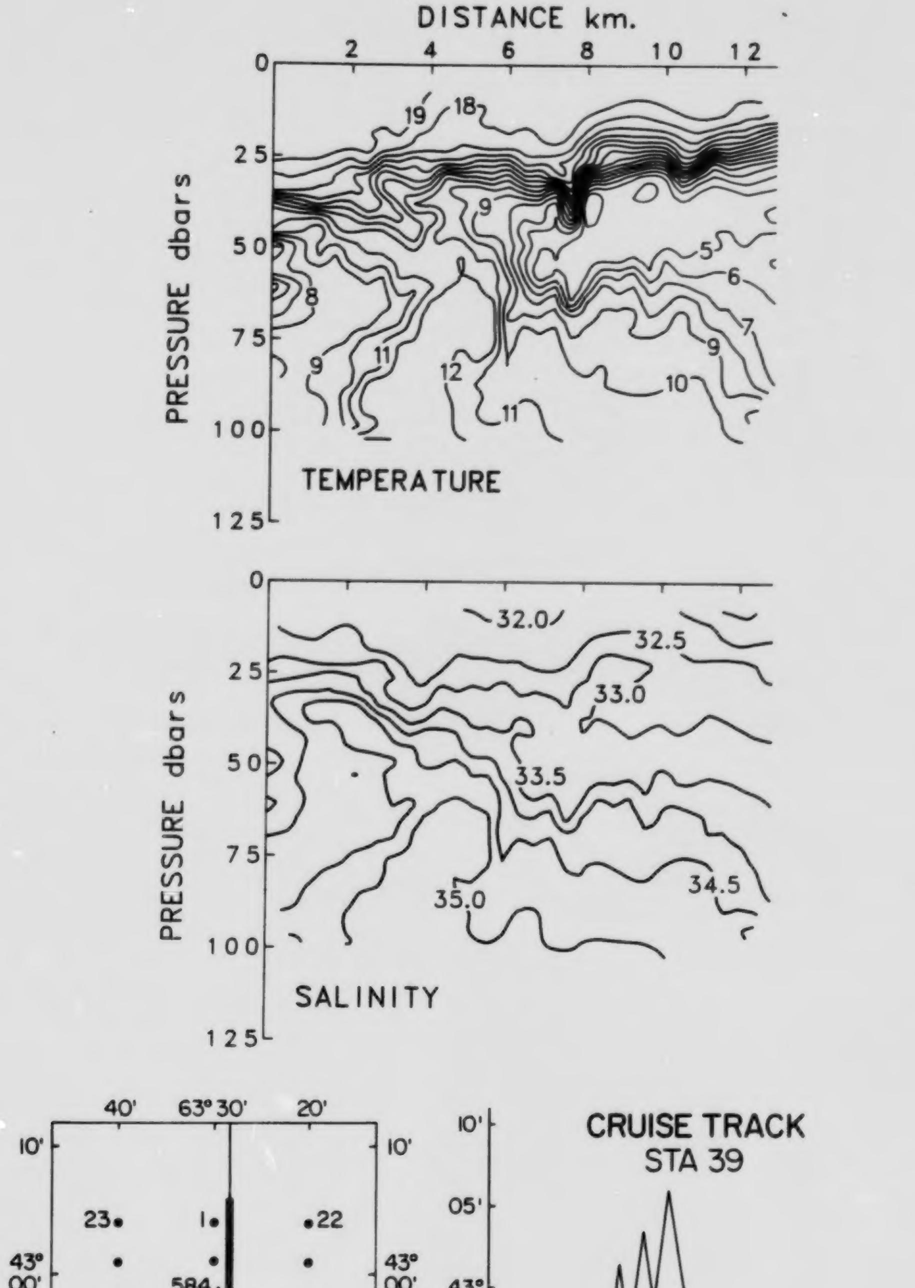

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
25
50
75
100
125
19
18
9
5
6
7
8
9
11
12
11
9
10
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
32.0
32.5
33.0
33.5
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
23
1
22
43°
00'
584
585
50'
200m
800m
1200m
40'
32
10
11
BATFISH
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 208

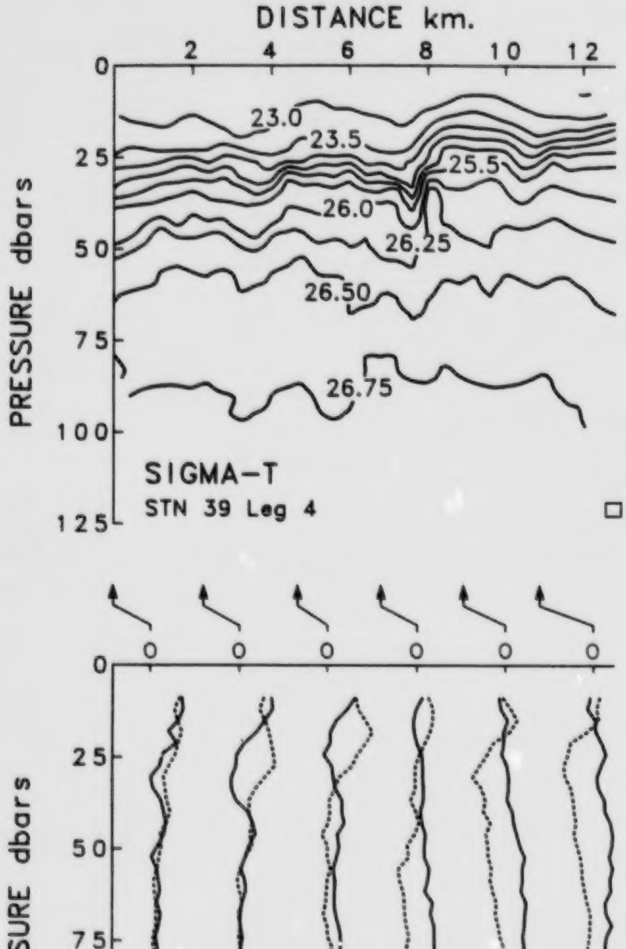

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 39 Leg 4
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹
200 m
START

Fig. 209

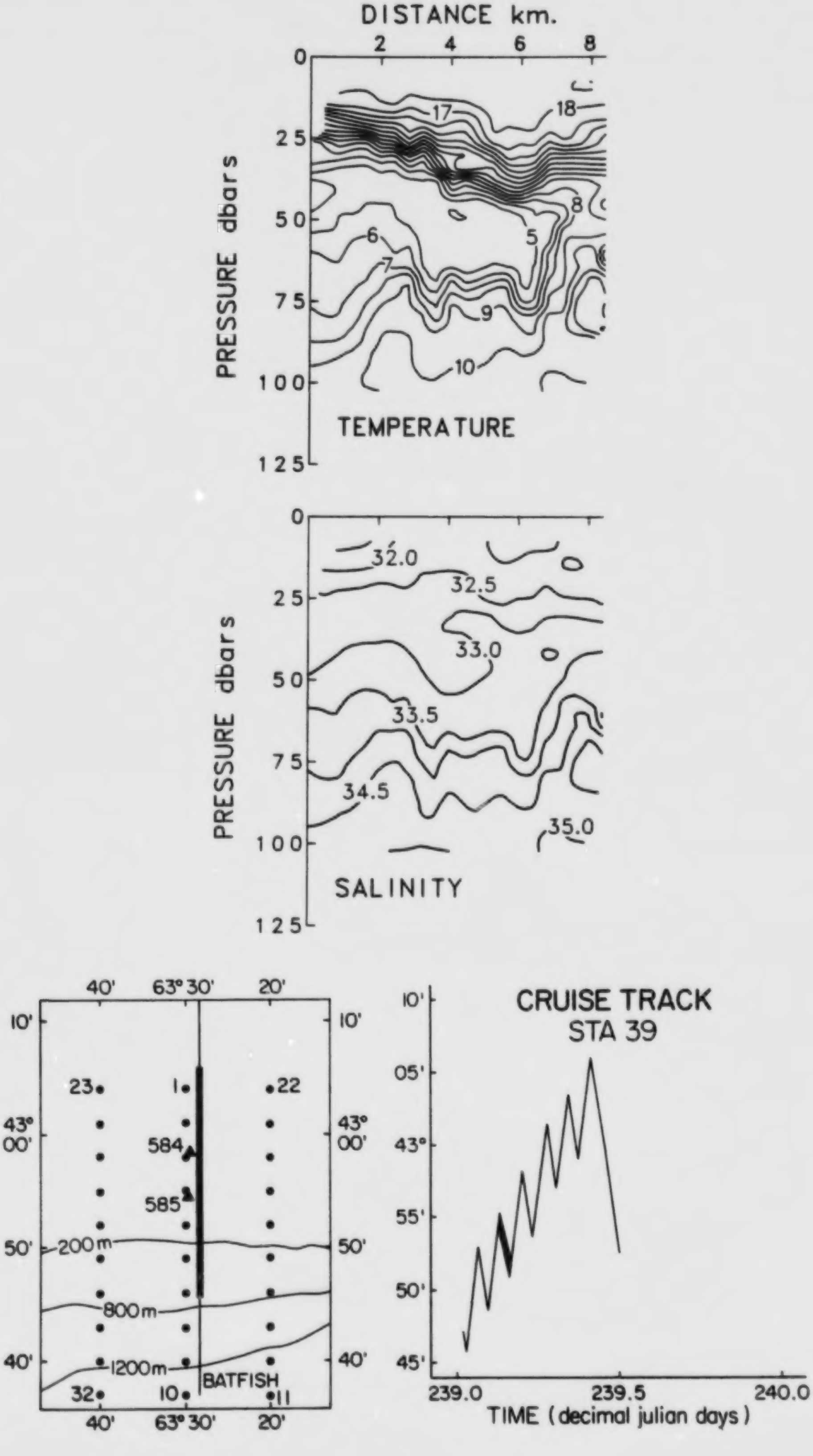

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
17
18
8
6
5
7
9
10
TEMPERATURE
32.0
32.5
33.0
33.5
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 39
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 210

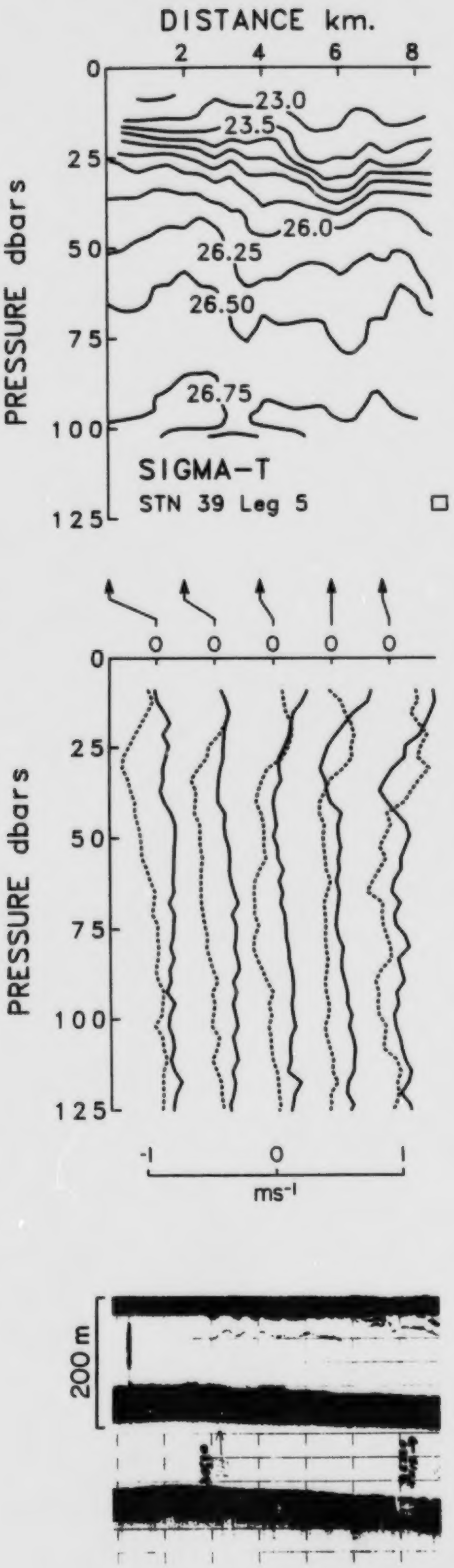

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 39 Leg 5
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 211

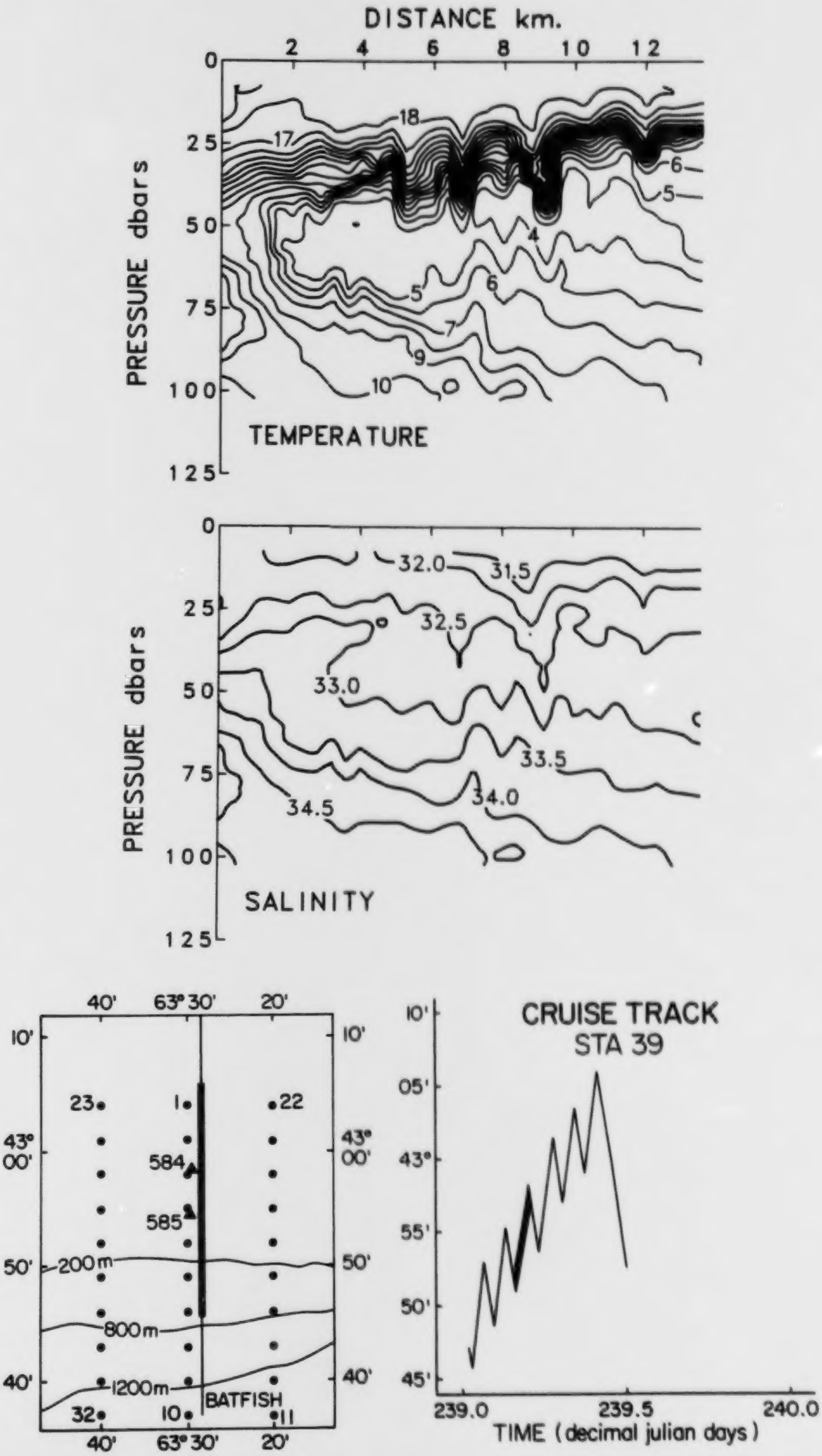

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
18
17
6
5
4
5
6
7
9
10
TEMPERATURE
32.0
31.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 39
05'
55'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 212

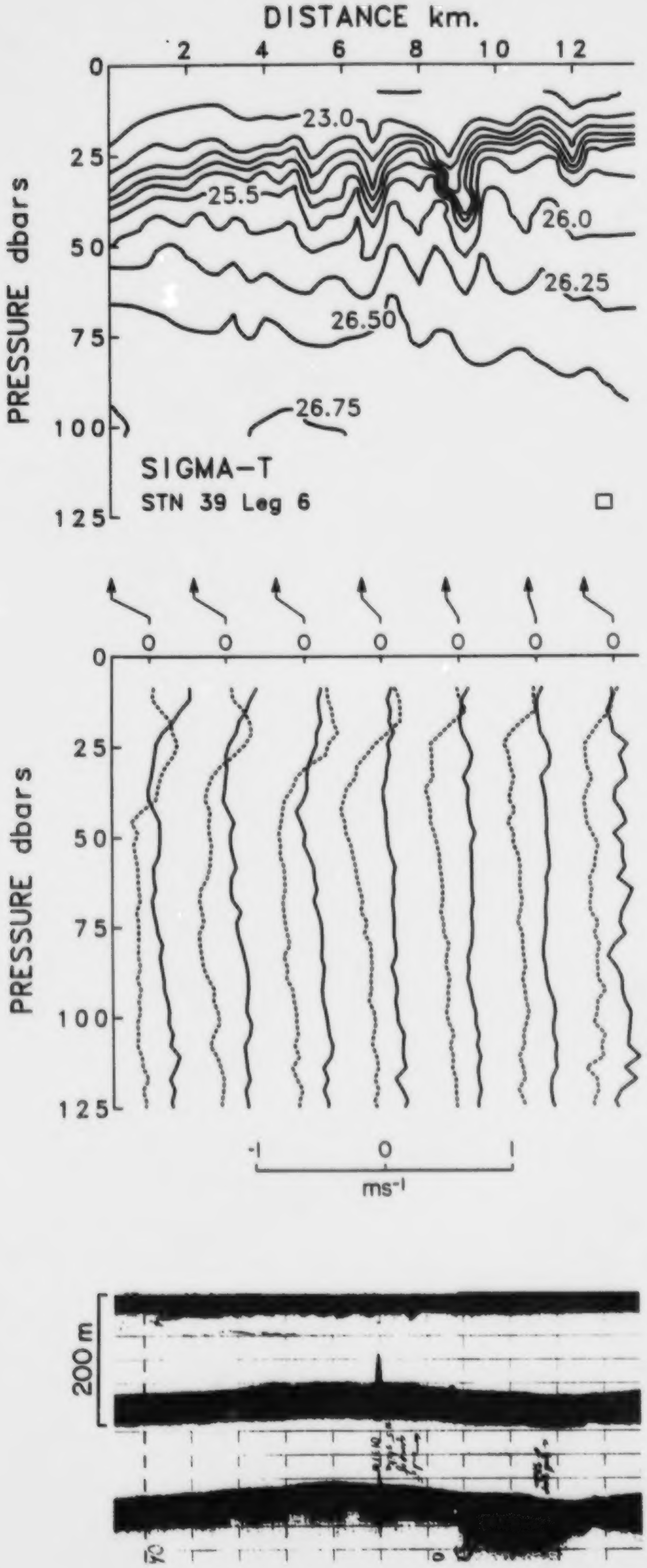

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 39 Leg 6
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m
70
0

Fig. 213

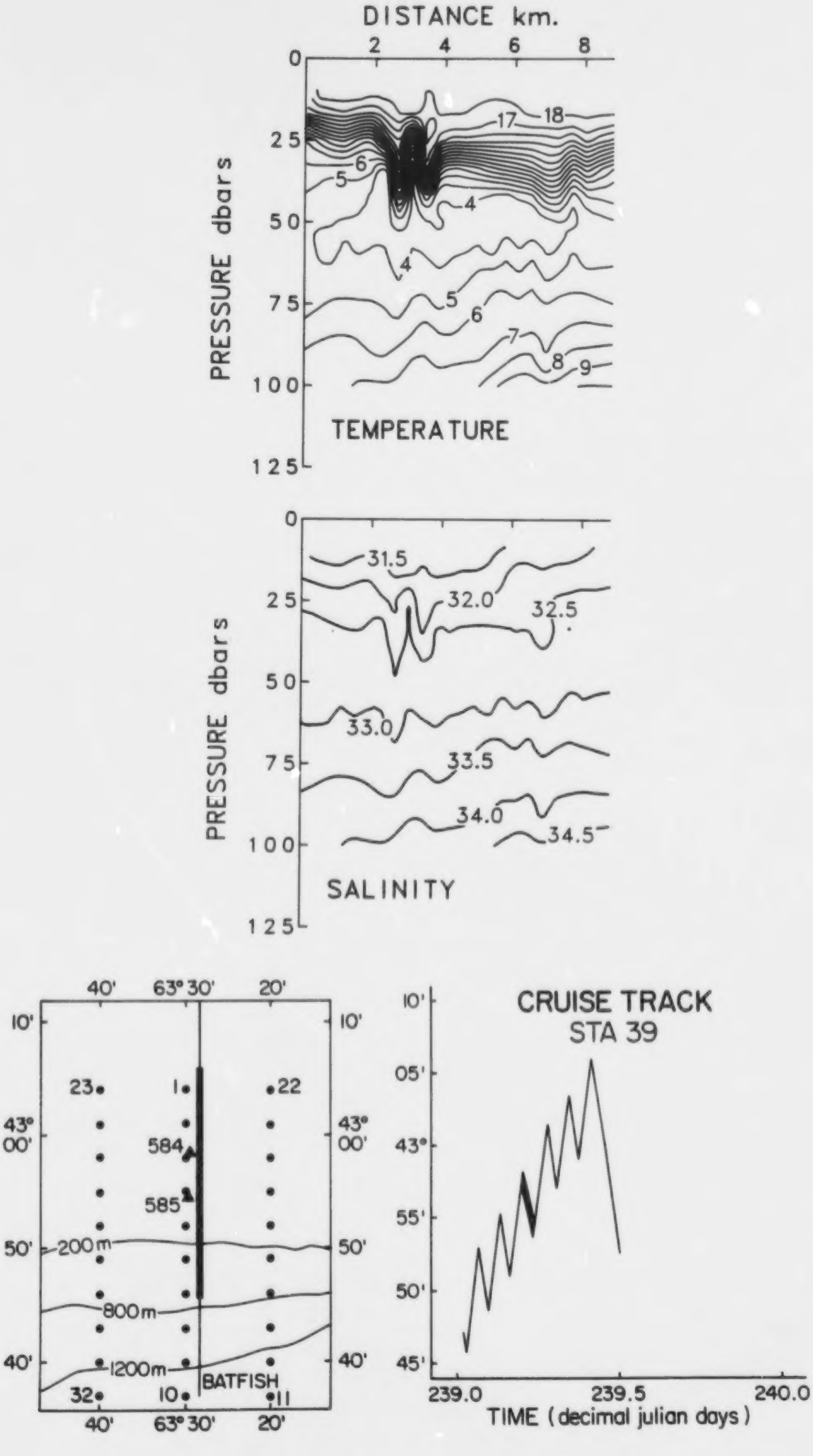

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
17
18
6
5
4
4
5
6
7
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 214

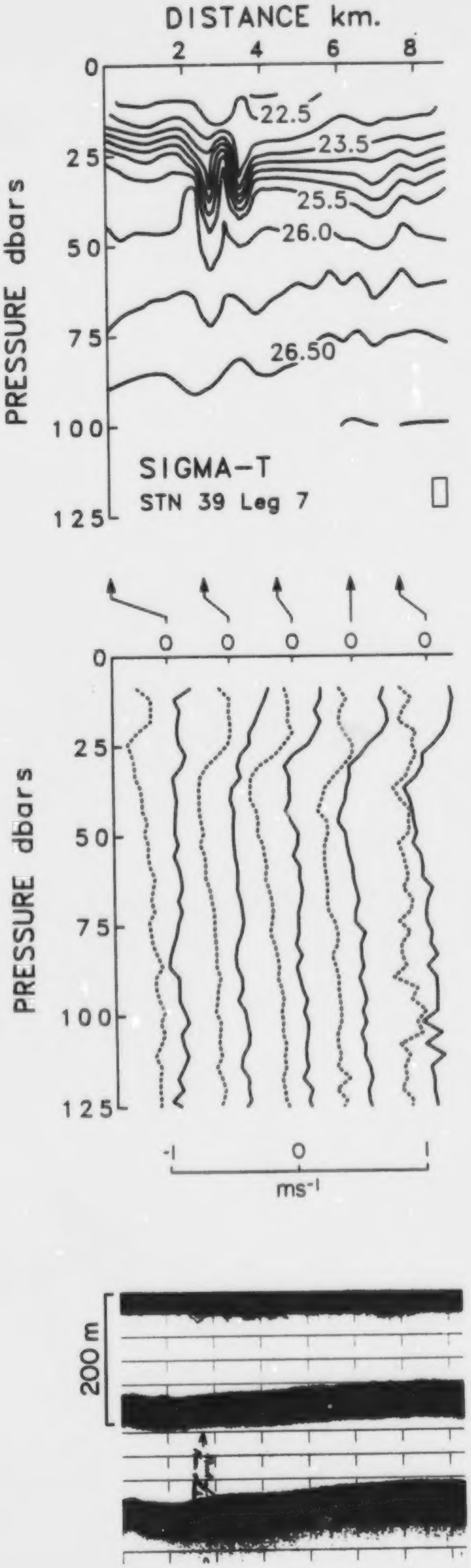

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
22.5
23.5
25.5
26.0
26.50
SIGMA-T
STN 39 Leg 7
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 215

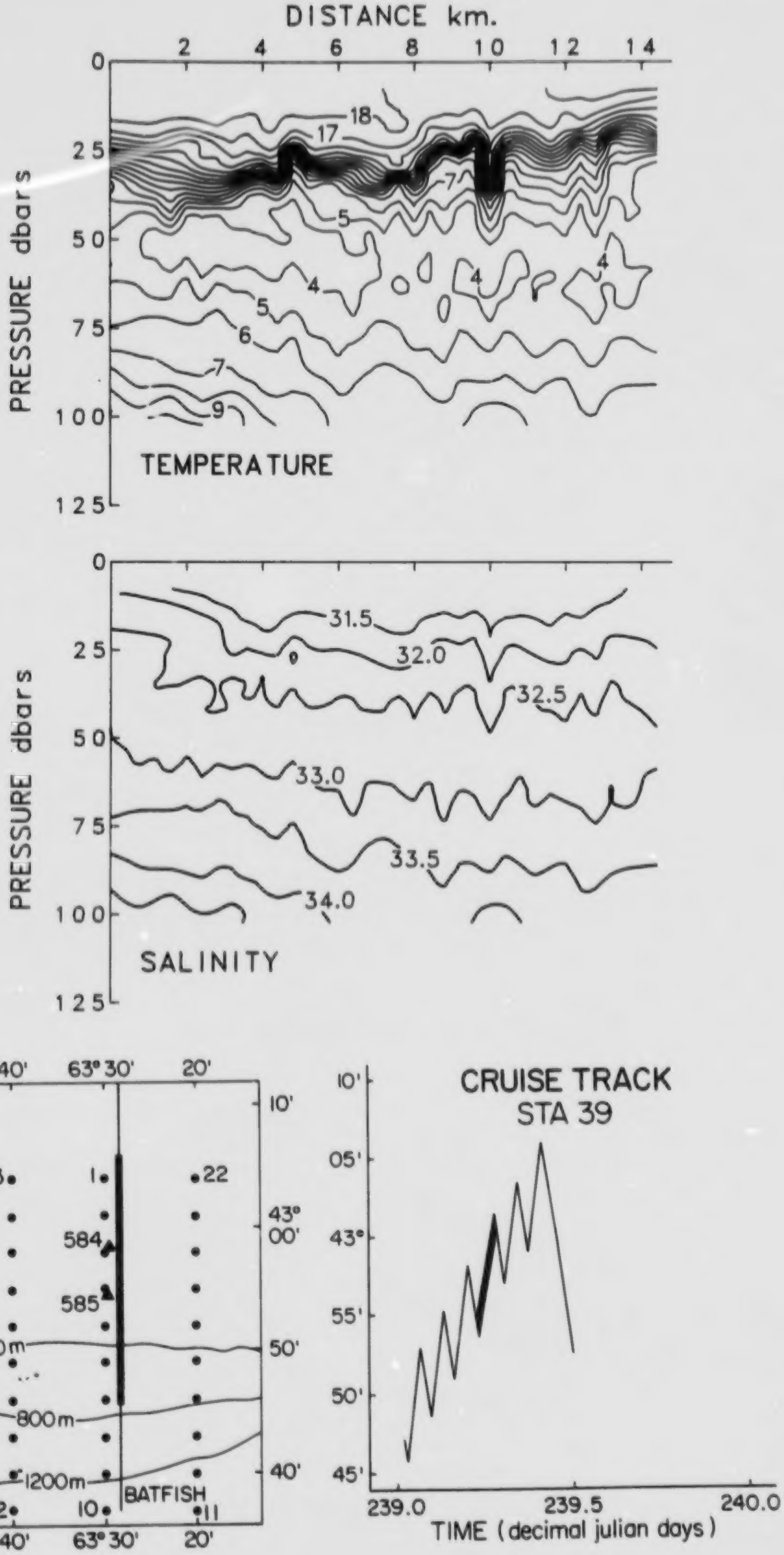

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
7
5
4
4
4
5
6
7
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
34.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 216

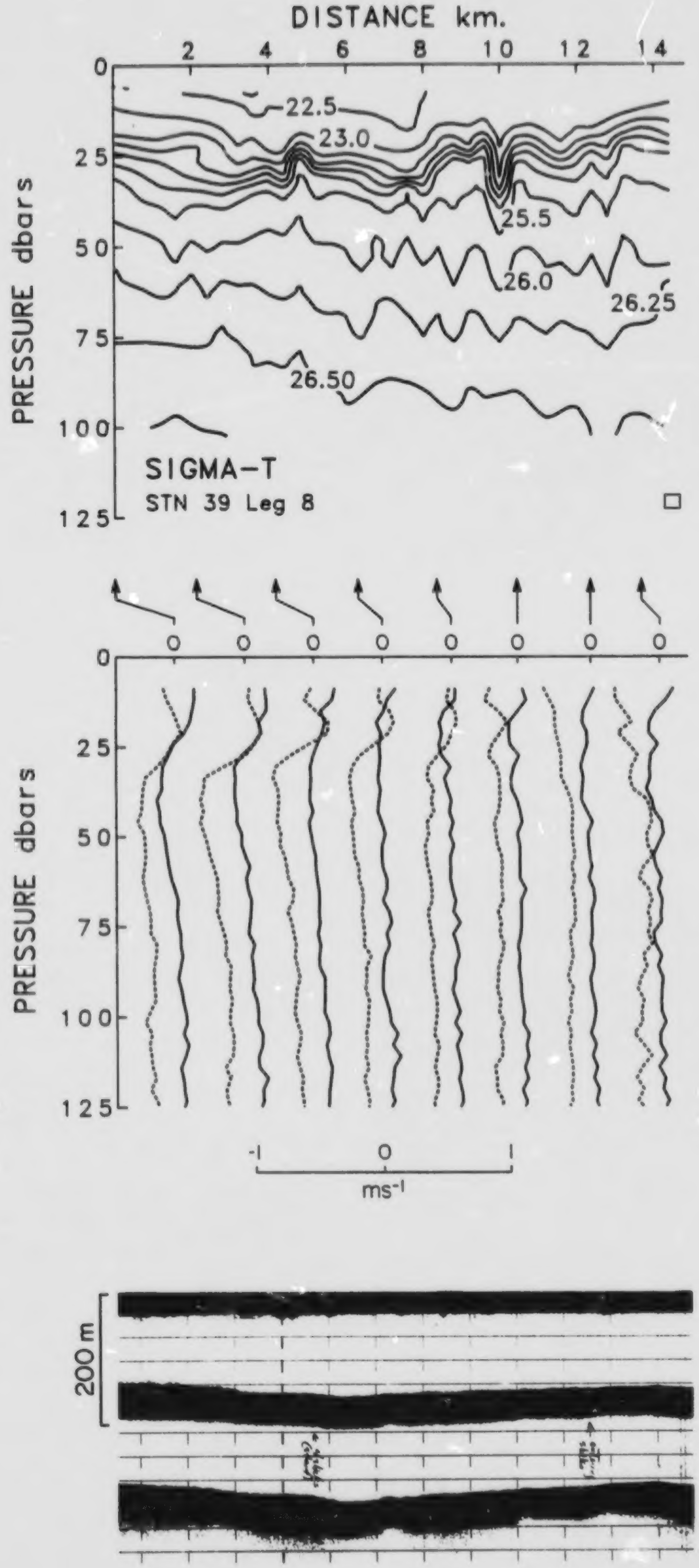

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
22.5
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 39 Leg 8
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 217

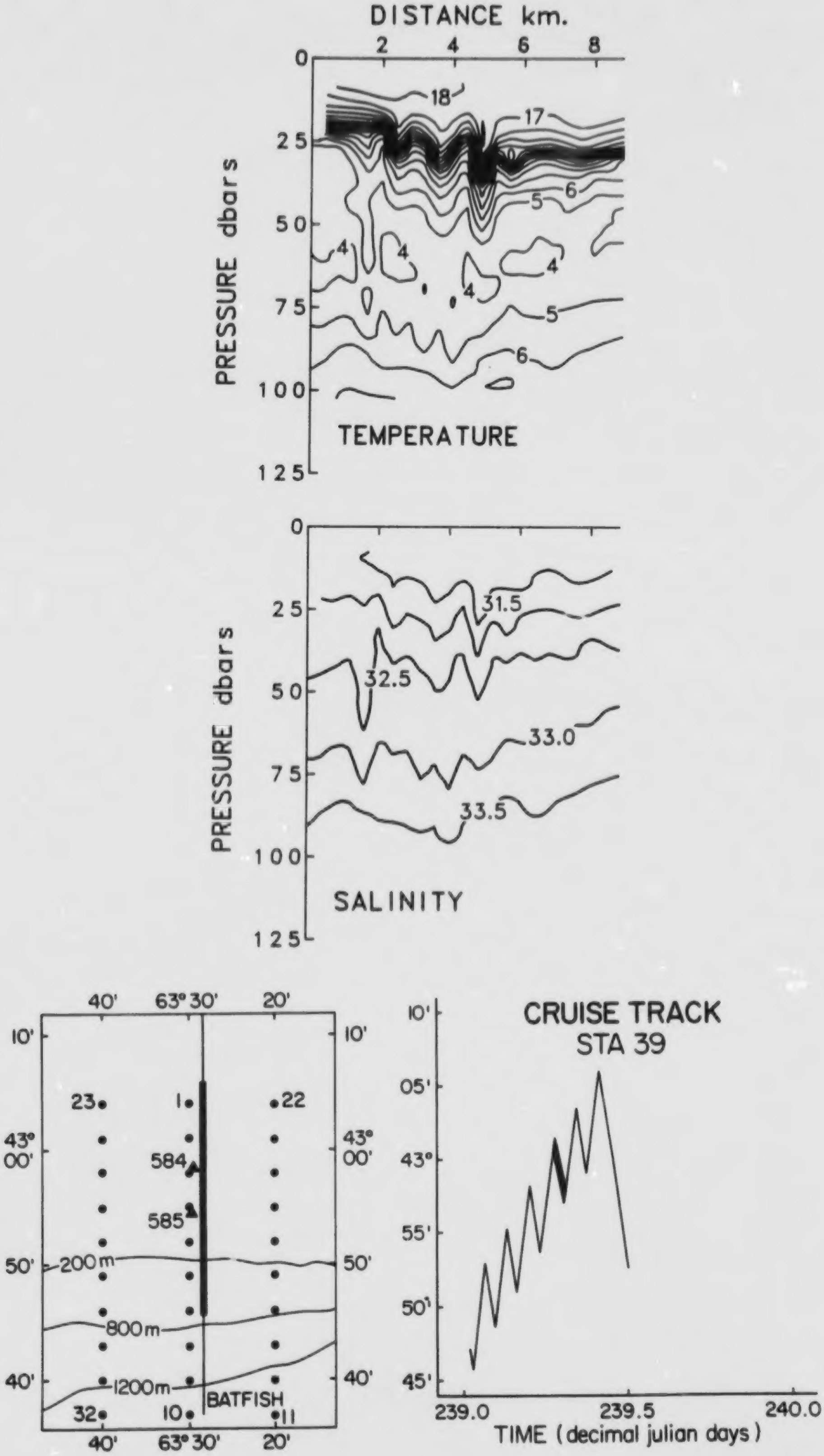

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
18
17
10
6
5
4
4
4
4
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 218

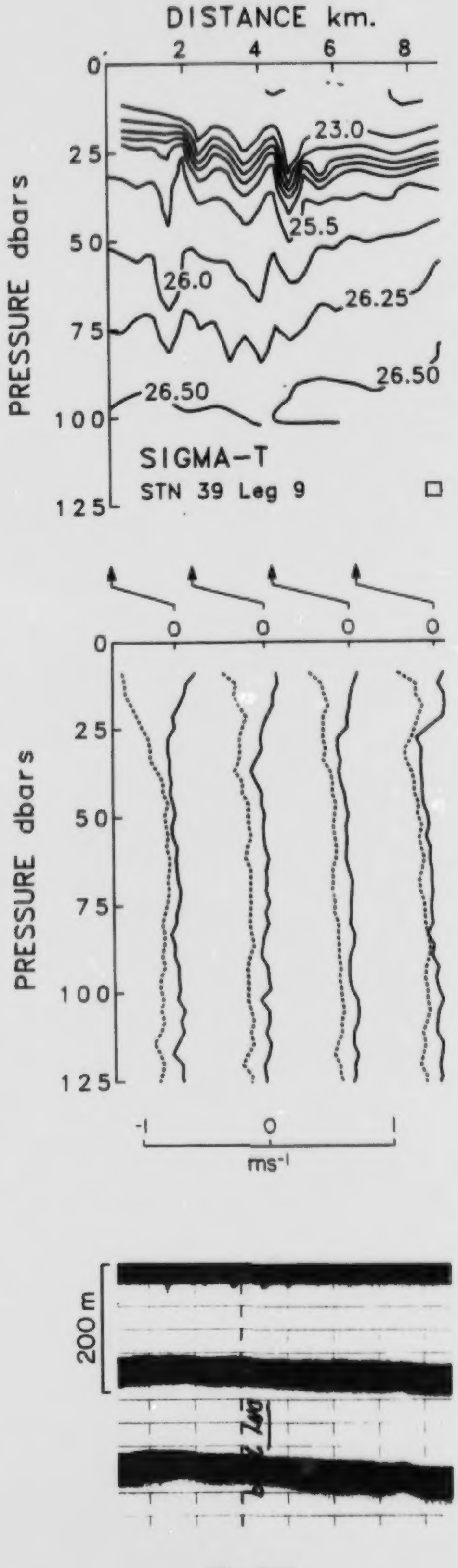

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.50
SIGMA-T
STN 39 Leg 9
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹
200 m

Fig. 219

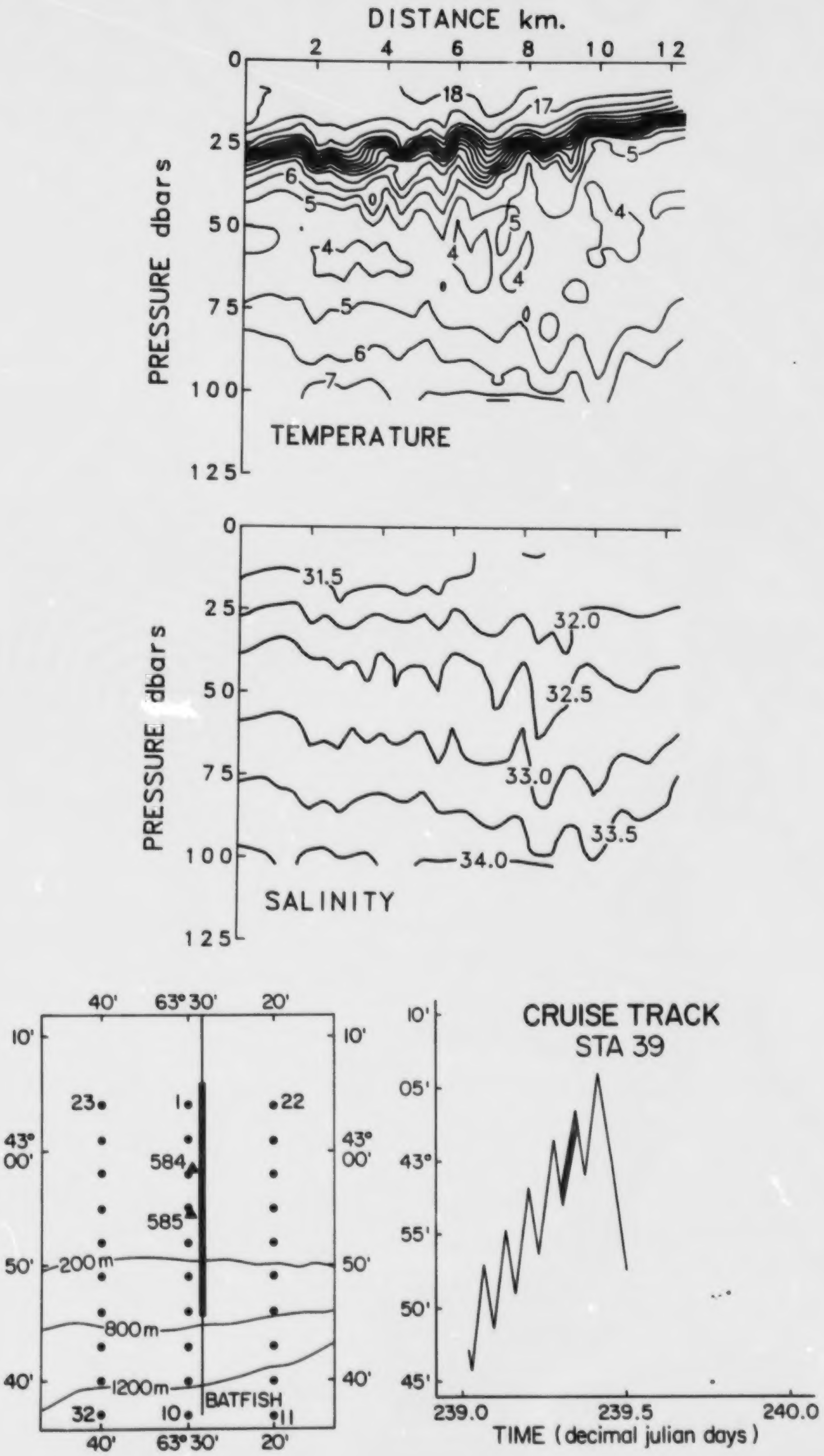

DISTANCE km.
0
2
4
6
8
10
12
25
50
75
100
125
PRESSURE dbars
18
17
5
6
5
0
4
5
4
4
4
5
0
6
7
TEMPERATURE
31.5
32.0
32.5
33.0
33.5
34.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
05'
43°
55'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 220

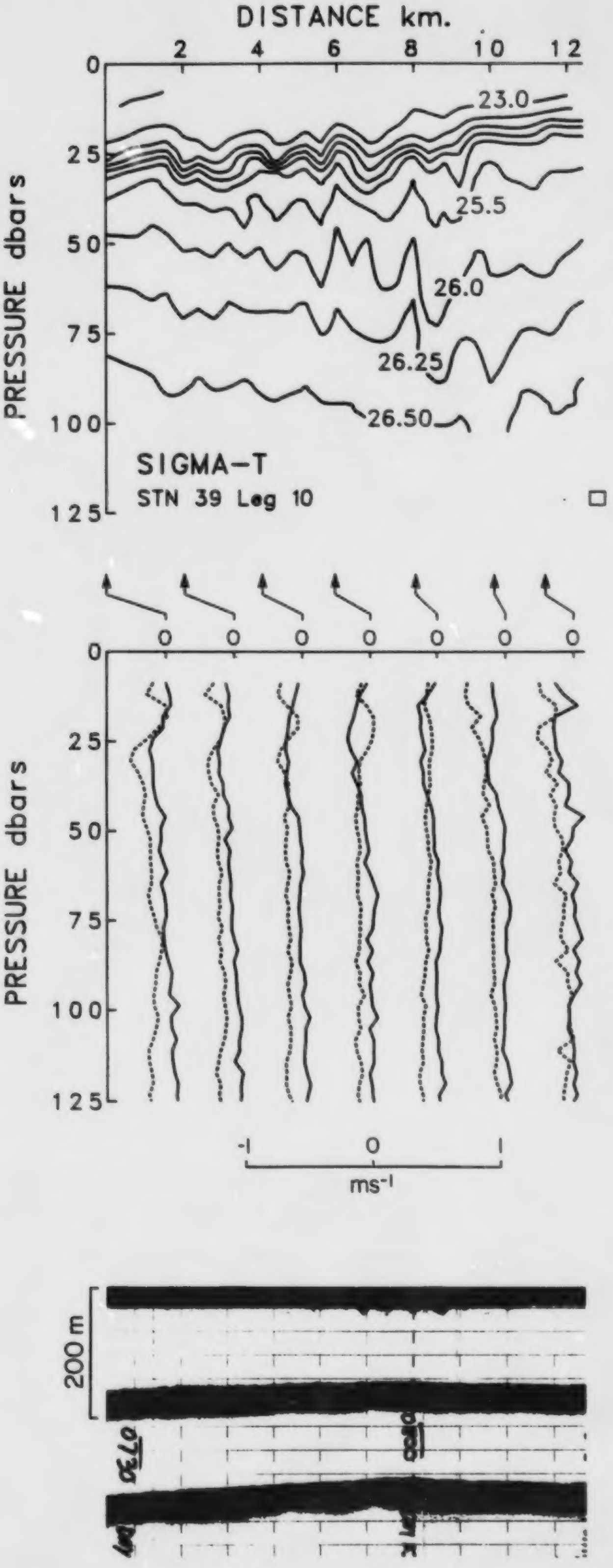

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 39 Leg 10
0
-1
0
1
ms-1
200 m
0730
0800

Fig. 221

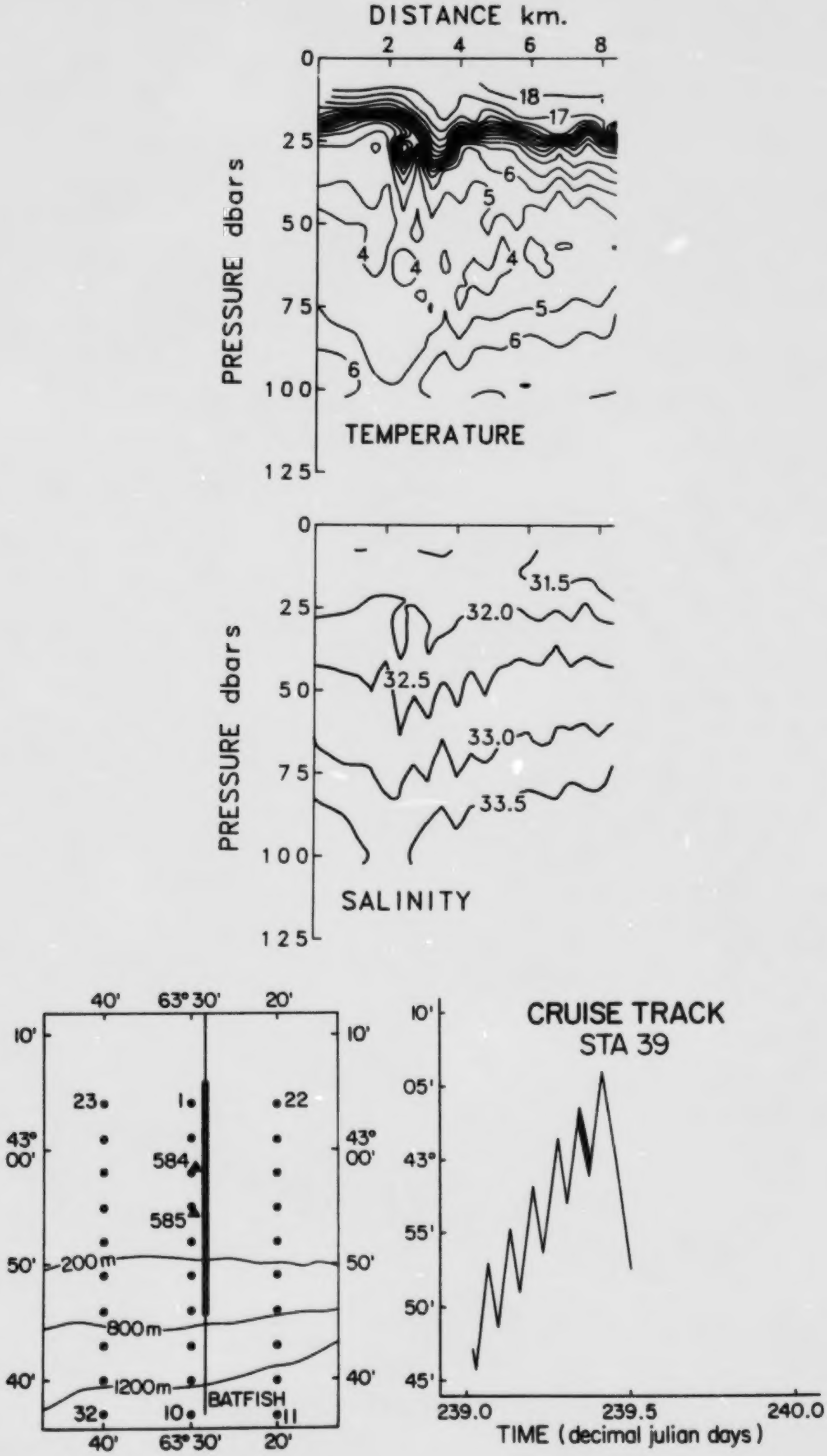

DISTANCE km.
0
2
4
6
8
18
17
6
5
4
4
4
5
6
6
PRESSURE dbars
25
50
75
100
125
TEMPERATURE
31.5
32.0
32.5
33.0
33.5
PRESSURE dbars
0
25
50
75
100
125
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 222

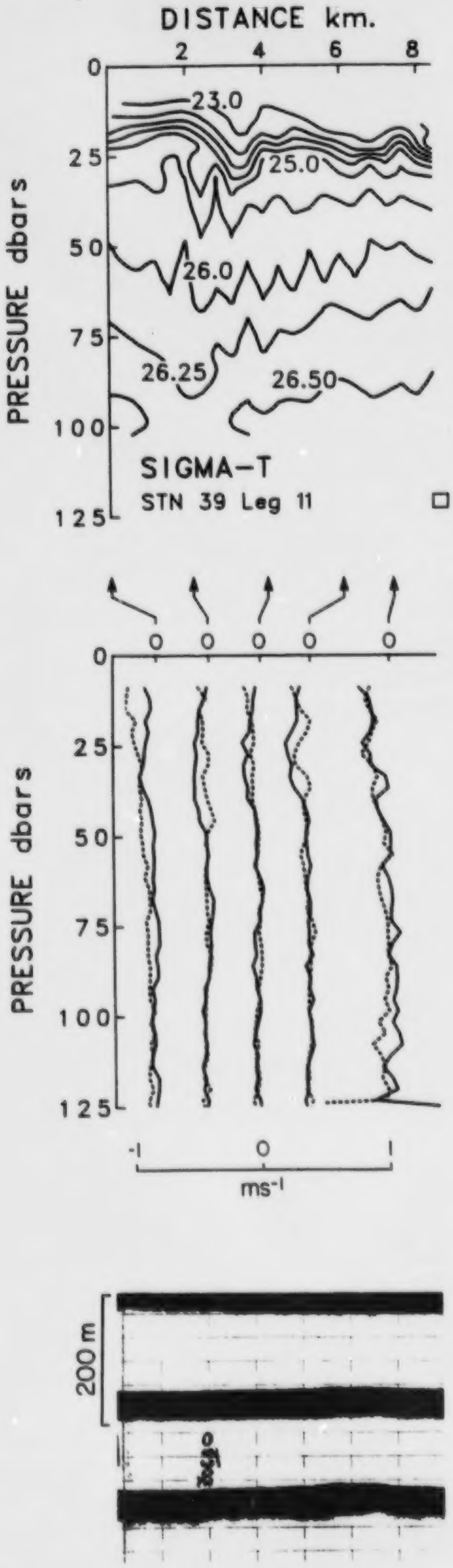

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
26.0
26.25
26.50
SIGMA-T
STN 39 Leg 11
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 223

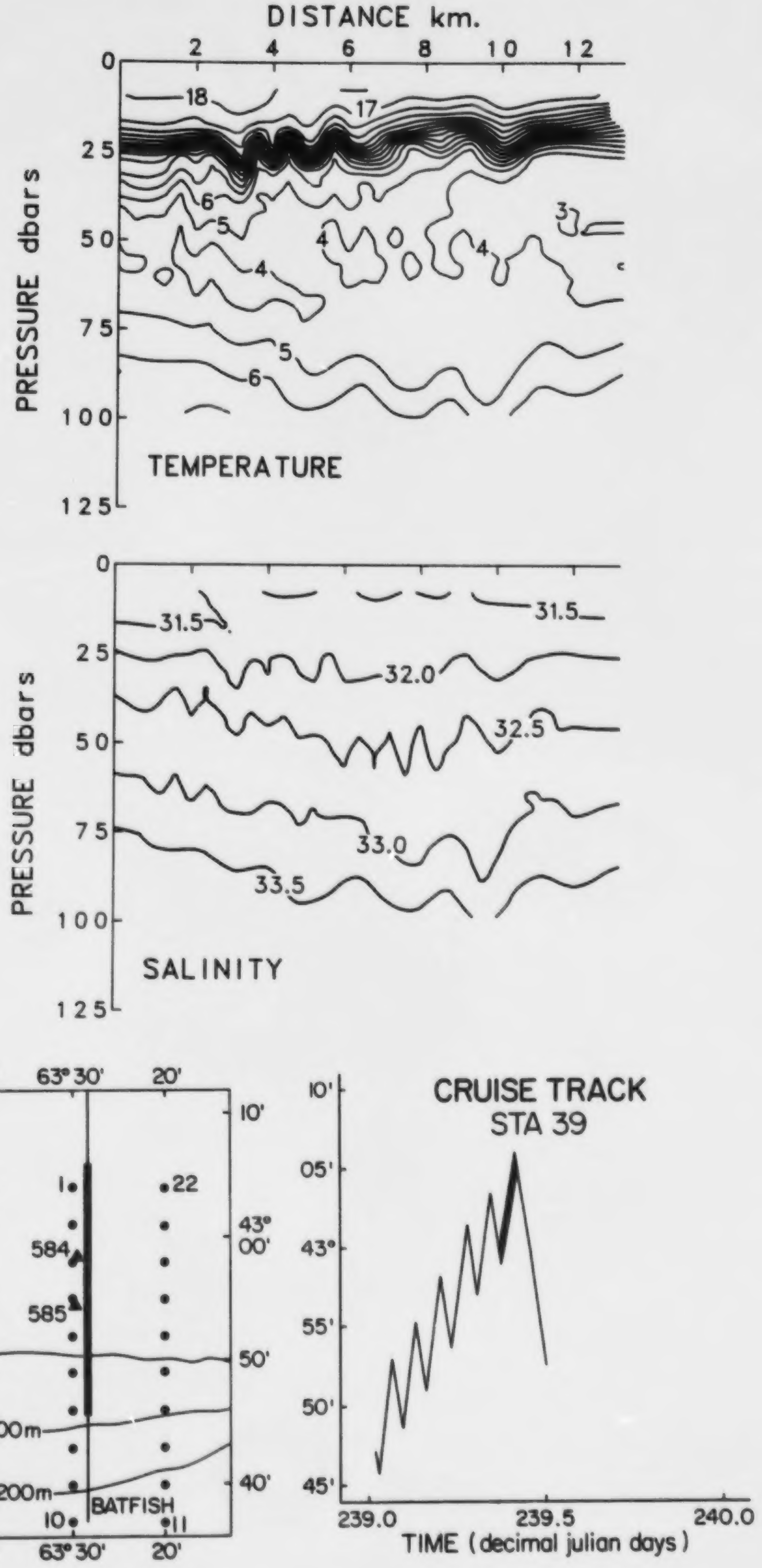

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
18
17
6
5
4
4
4
3
5
6
TEMPERATURE
31.5
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 39
05'
43°
55'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 224

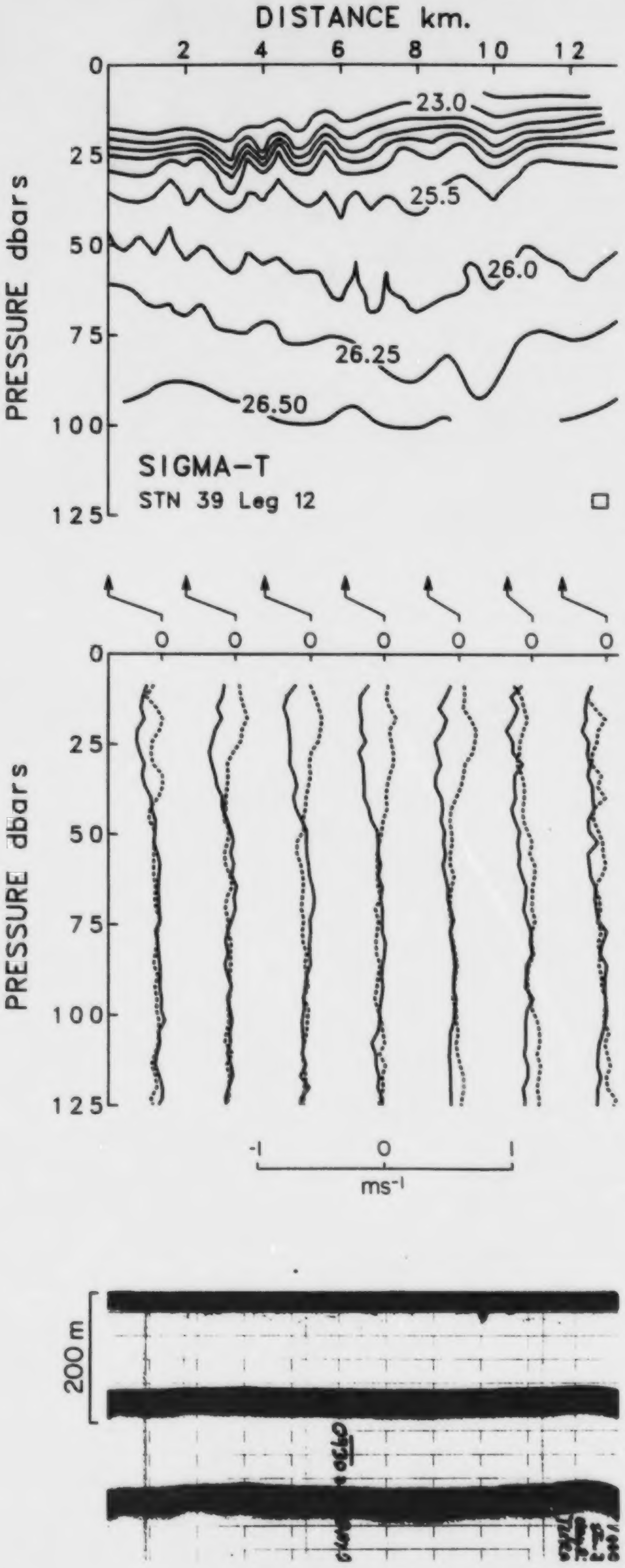

DISTANCE km.
2
4
6
8
10
12
PRESSURE dbars
0
25
50
75
100
125
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 39 Leg 12
PRESSURE dbars
0
25
50
75
100
125
-1
0
1
ms-1
200 m

Fig. 225

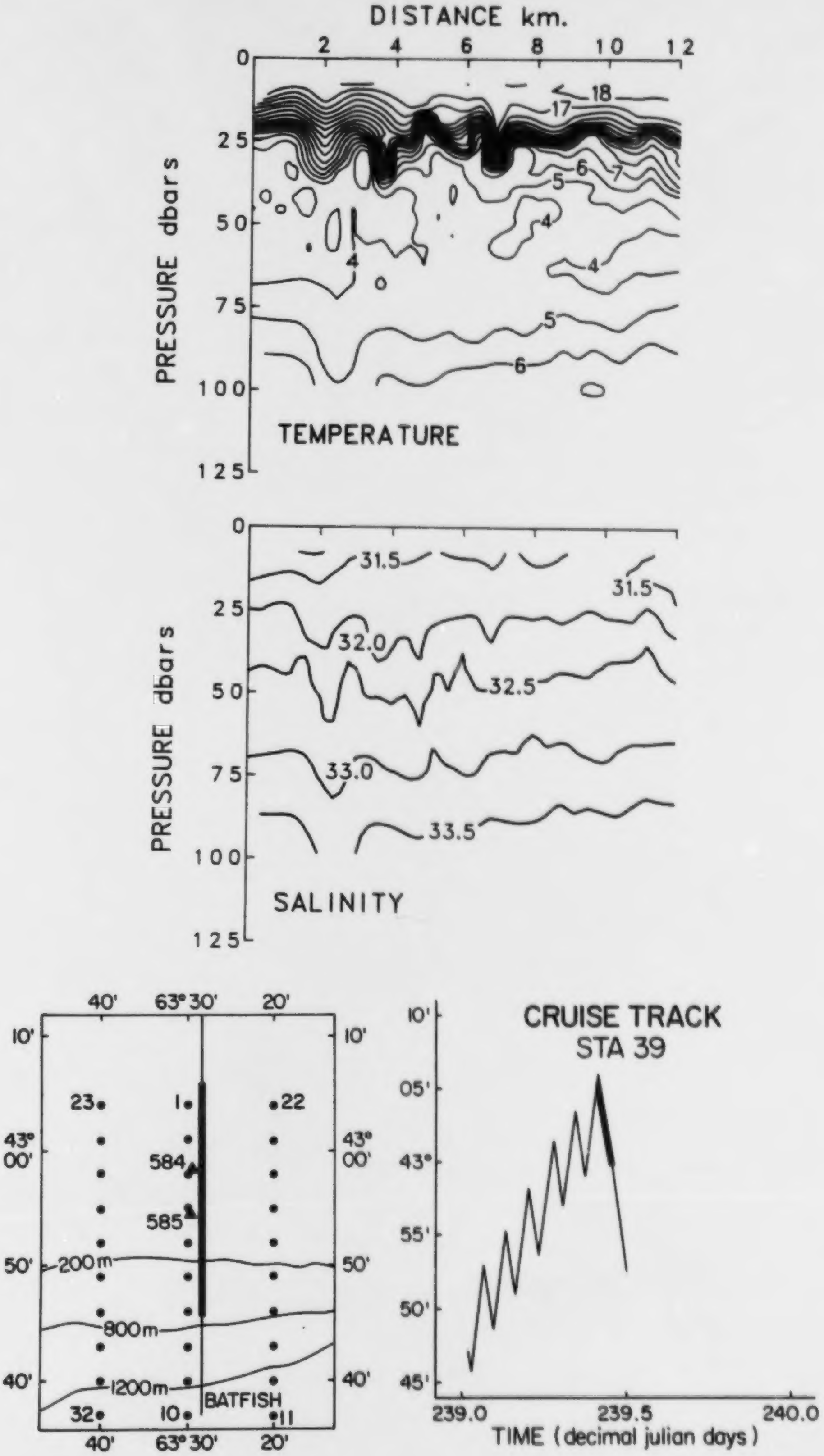

DISTANCE km.
0
2
4
6
8
10
12
25
50
75
100
125
PRESSURE dbars
18
17
7
6
5
4
4
4
5
6
TEMPERATURE
31.5
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 226

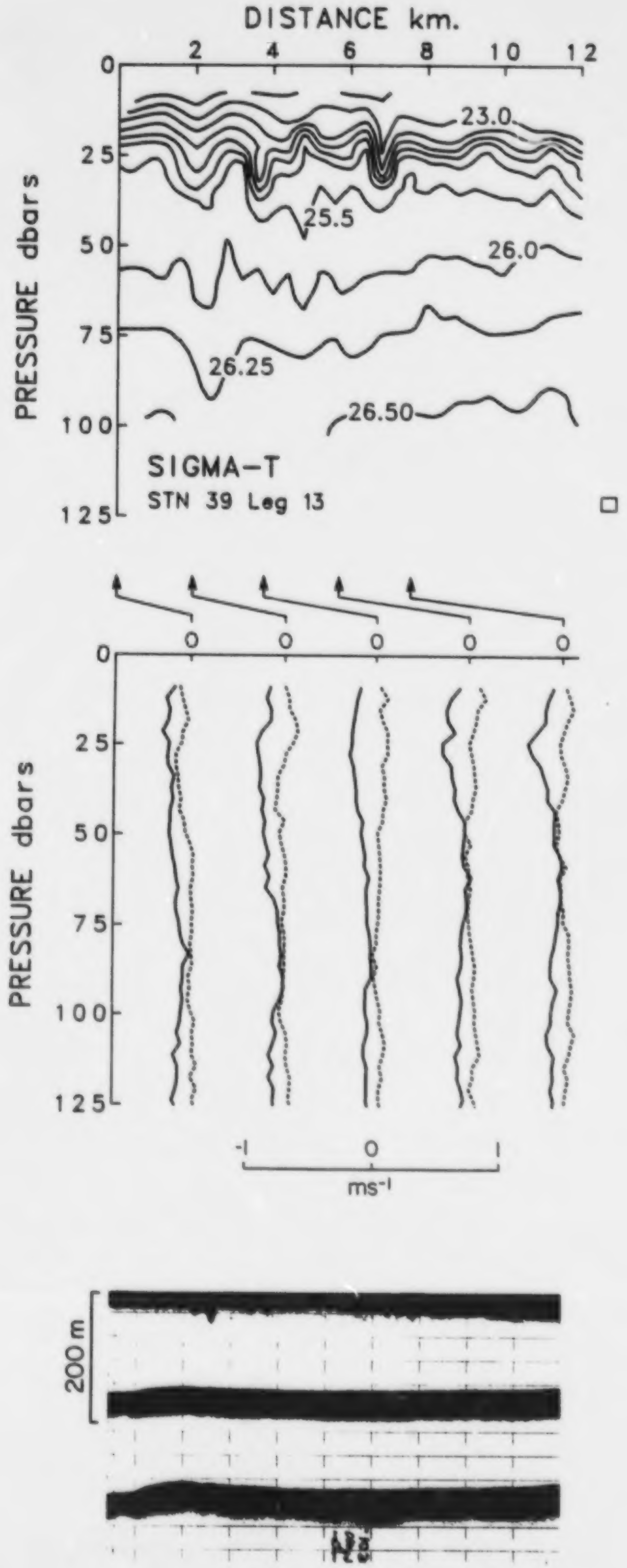

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
0
25
50
75
100
125
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 39 Leg 13
0
0
0
0
0
PRESSURE dbars
0
25
50
75
100
125
-1
0
1
ms-1
200 m

Fig. 227

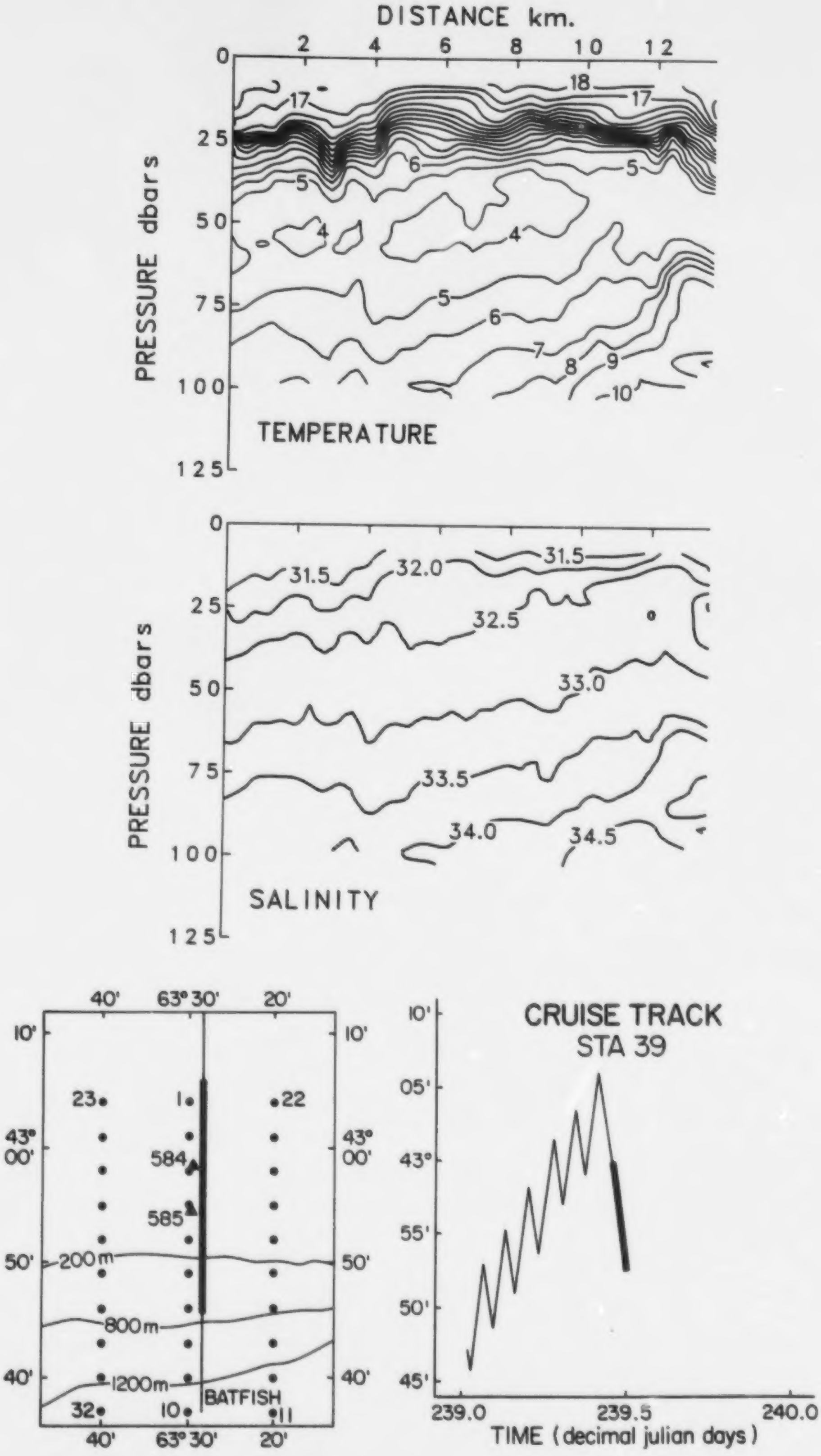

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
18
17
17
6
5
5
4
4
5
6
7
8
9
10
TEMPERATURE
PRESSURE dbars
31.5
32.0
31.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63°30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 39
10'
05'
43°
55'
50'
45'
239.0
239.5
240.0
TIME (decimal julian days)

Fig. 228

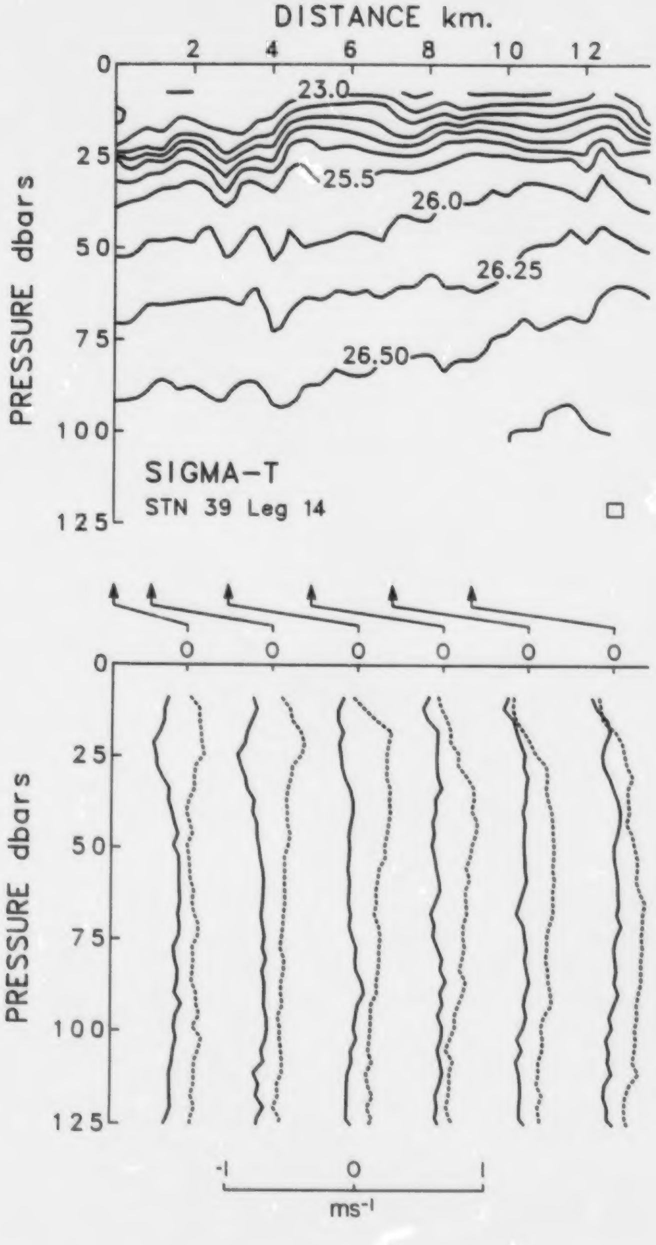

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 39 Leg 14
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 229

Figures 230-259

BATFISH station 40; 15 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

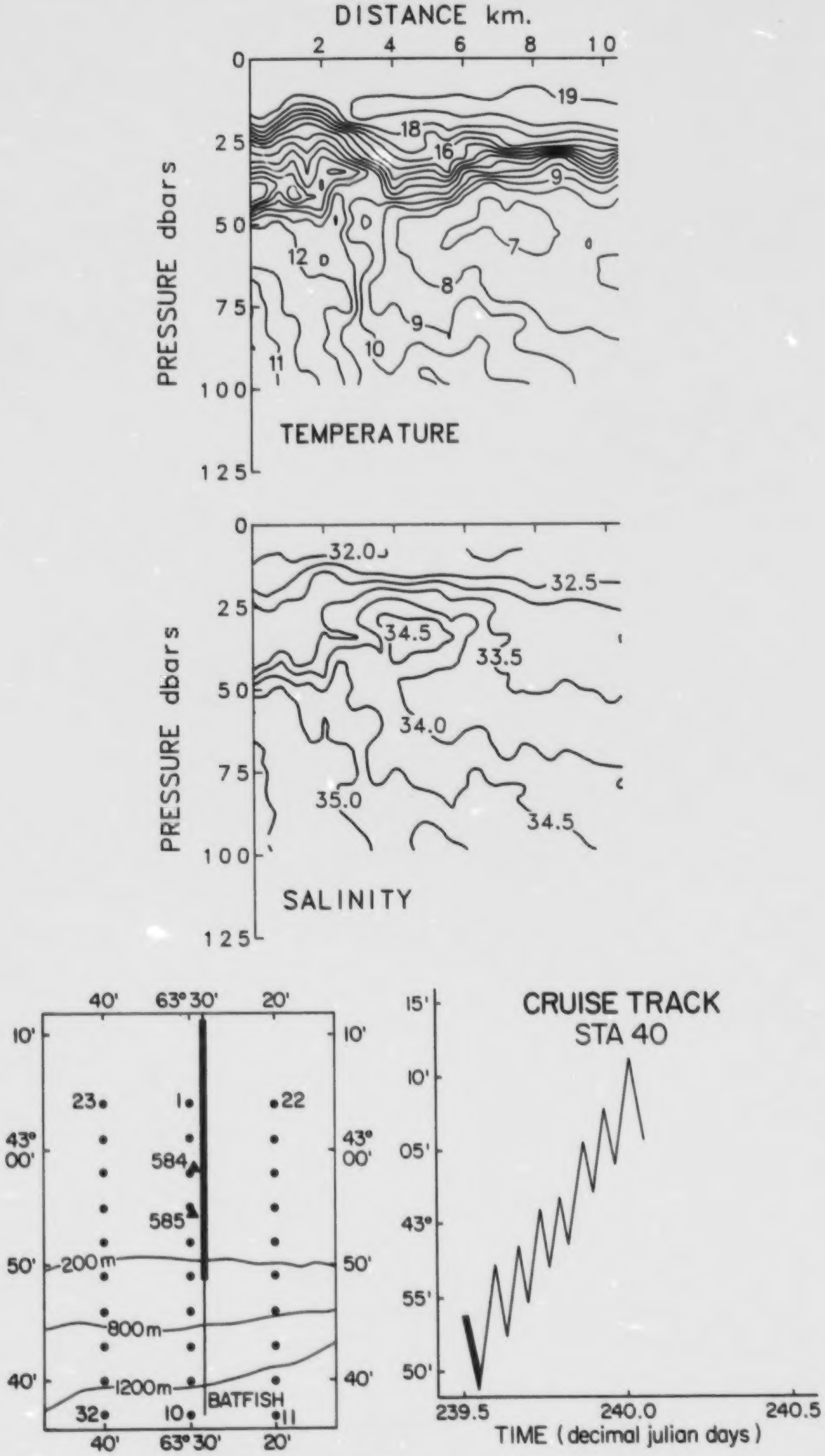

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
19
18
16
9
12
7
8
9
10
11
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
32.5
34.5
33.5
34.0
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 230

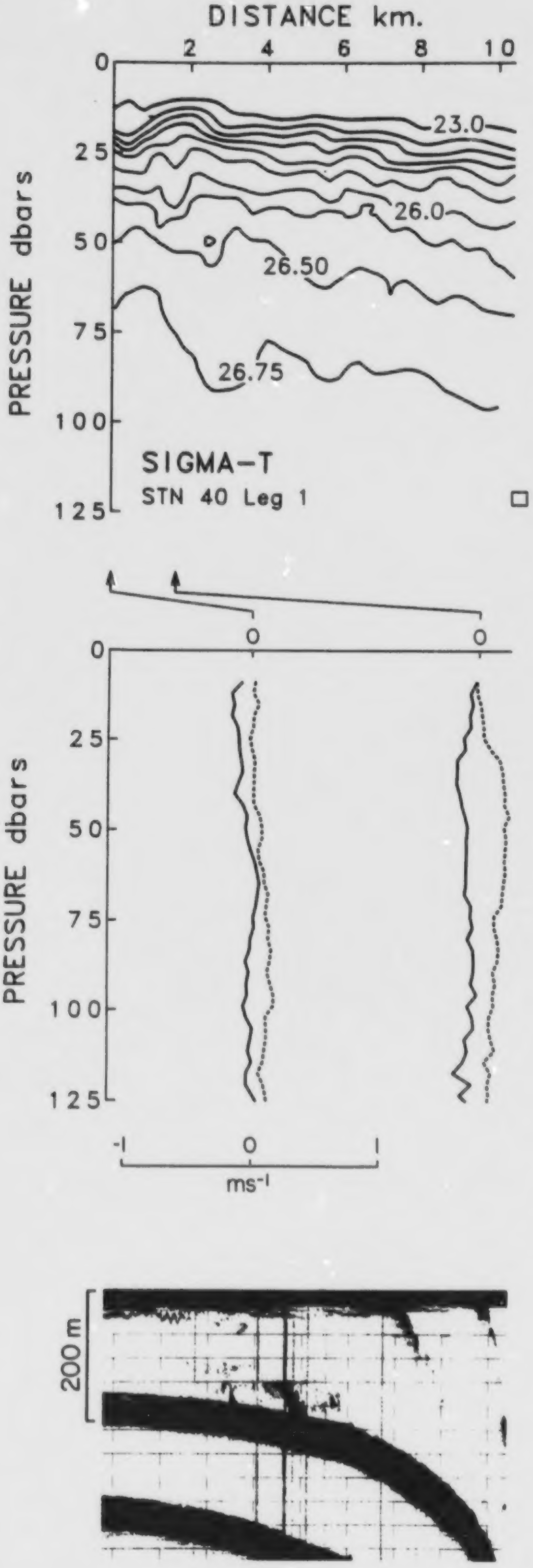

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
23.0
26.0
26.50
26.75
SIGMA-T
STN 40 Leg 1
O
O
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 231

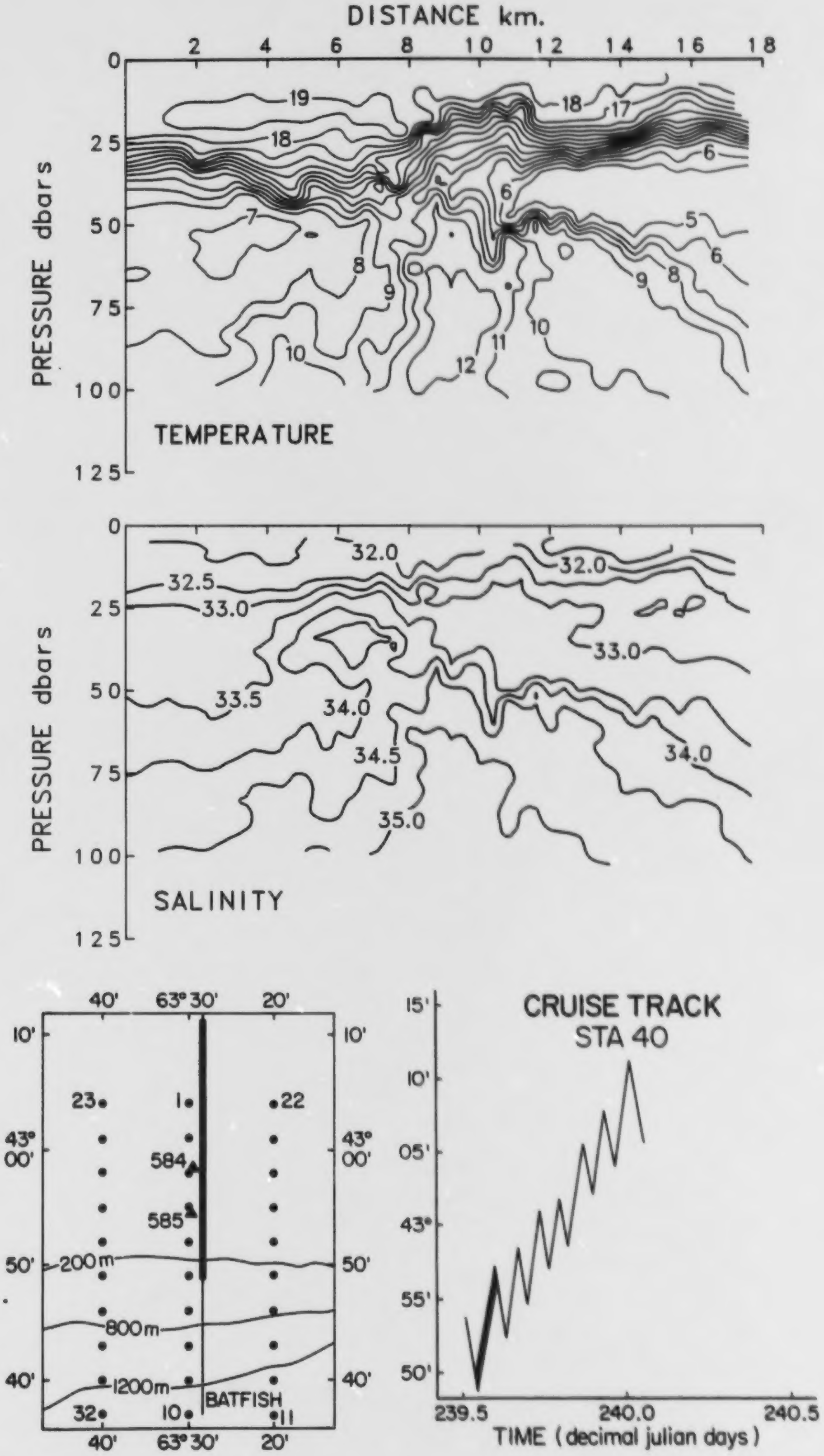

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
19
18
17
7
8
9
10
11
12
6
5
TEMPERATURE
32.0
32.5
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
05'
43°
55'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 232

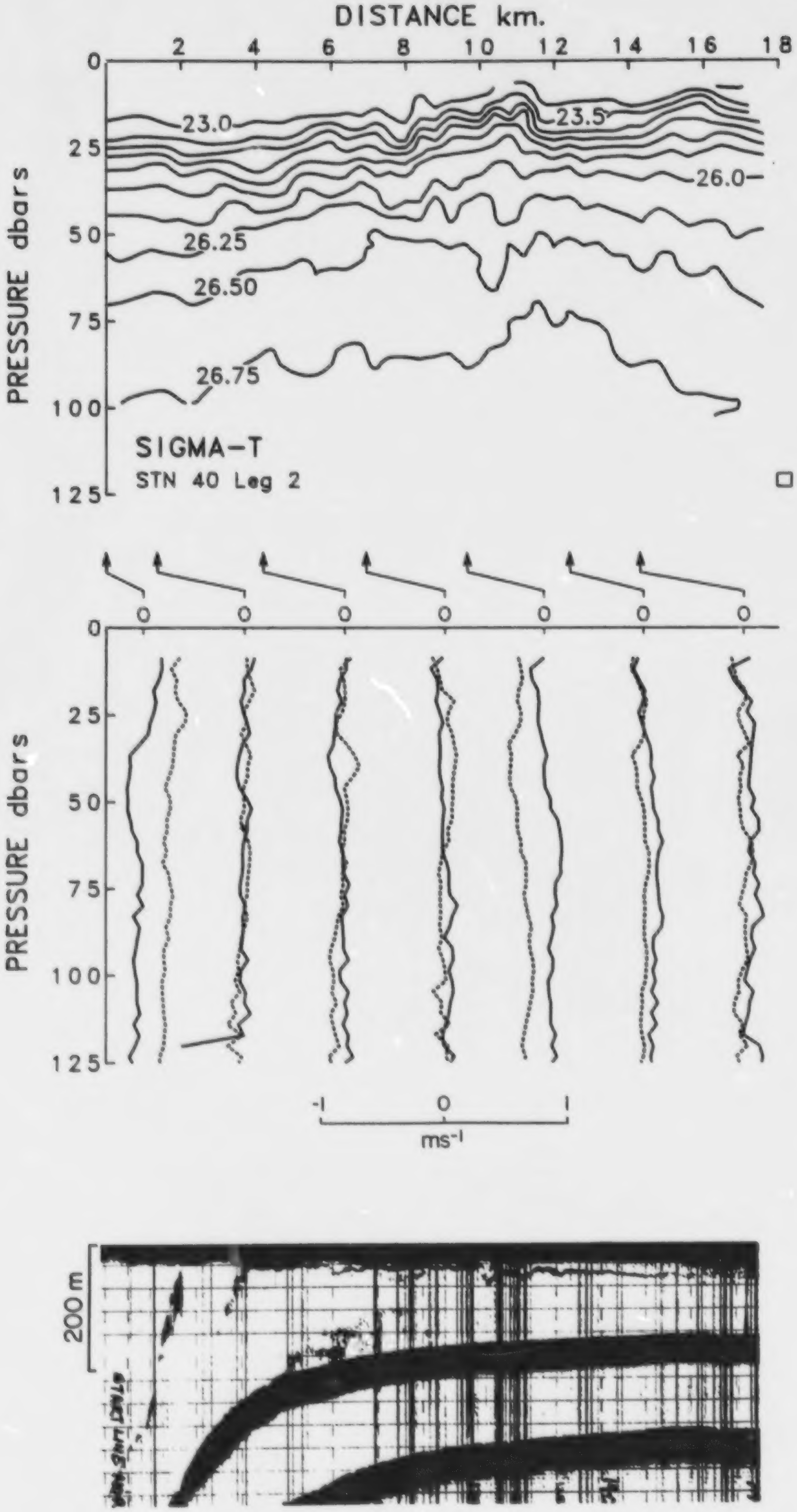

DISTANCE km.
2
4
6
8
10
12
14
16
18
0
25
50
75
100
125
PRESSURE dbars
23.0
23.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 40 Leg 2
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 233

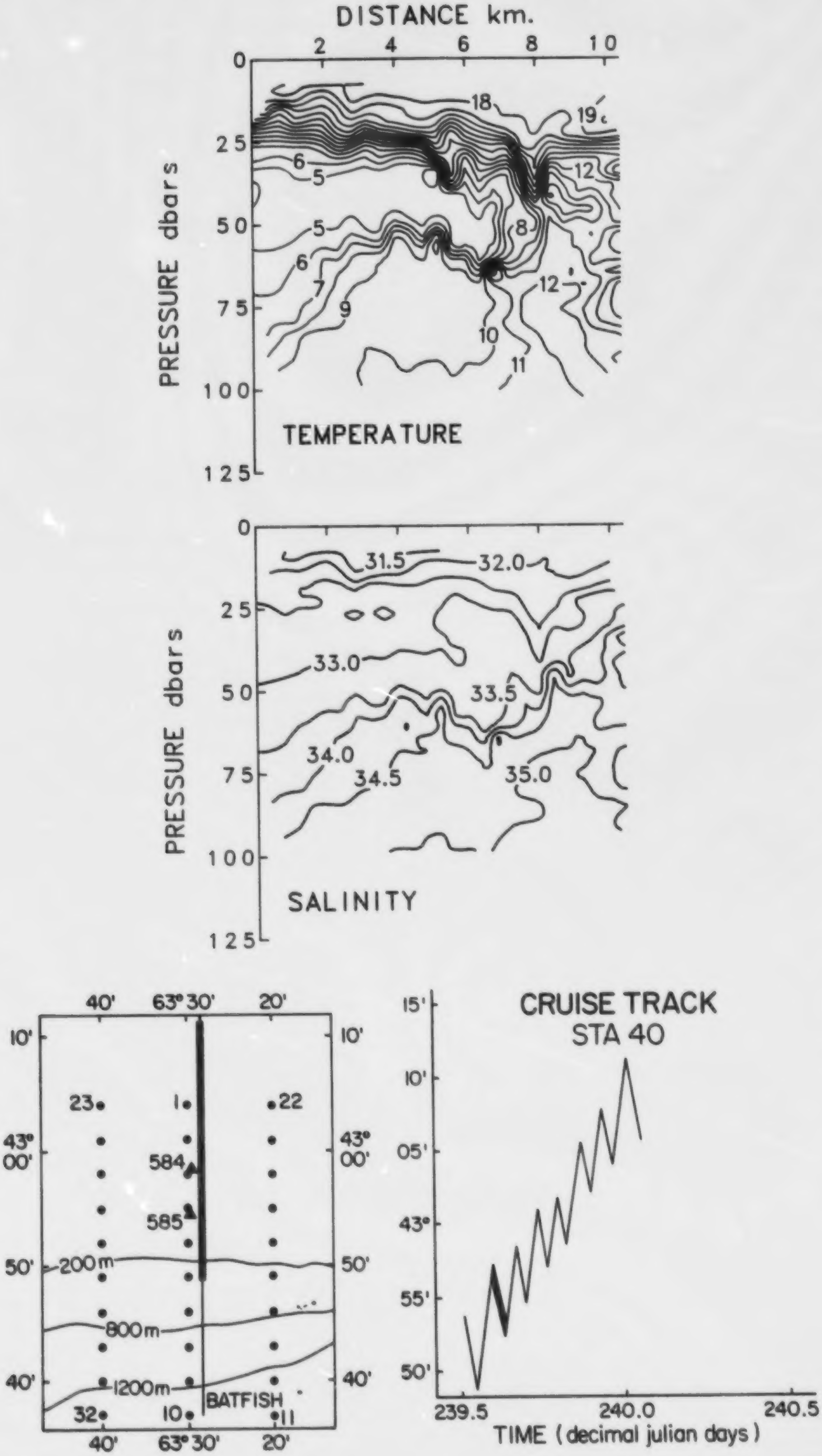

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
18
19
12
6
5
5
6
7
9
8
12
10
11
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 234

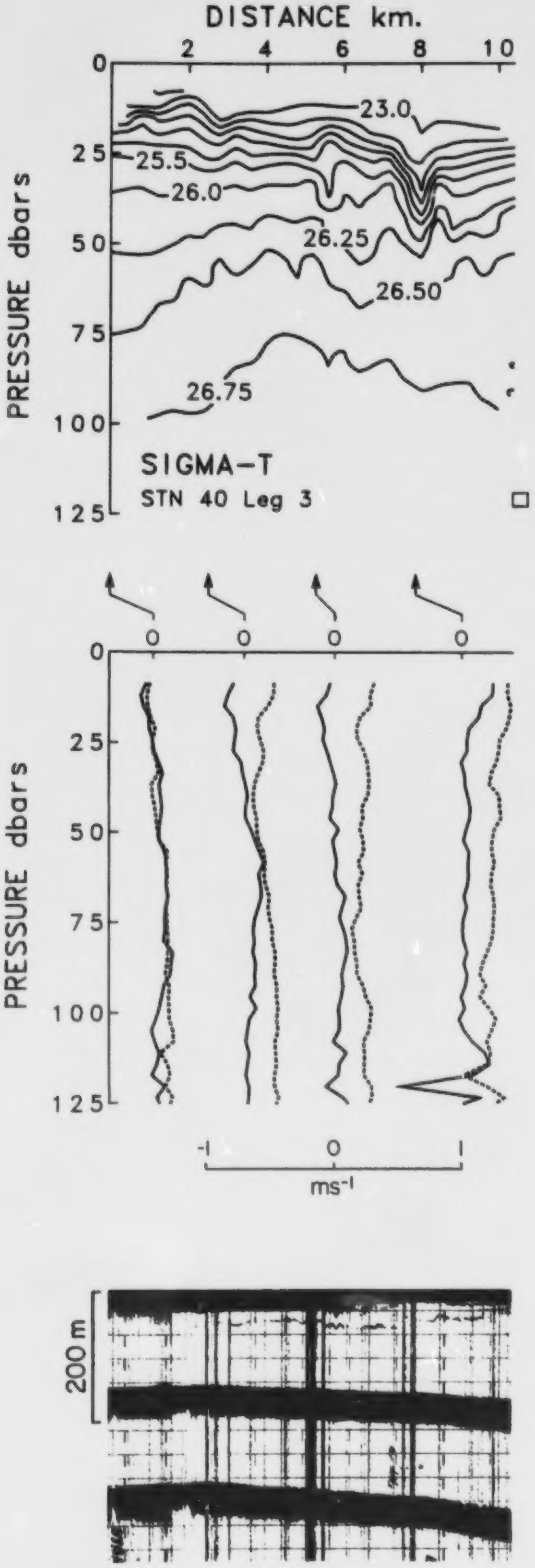

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 40 Leg 3
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 235

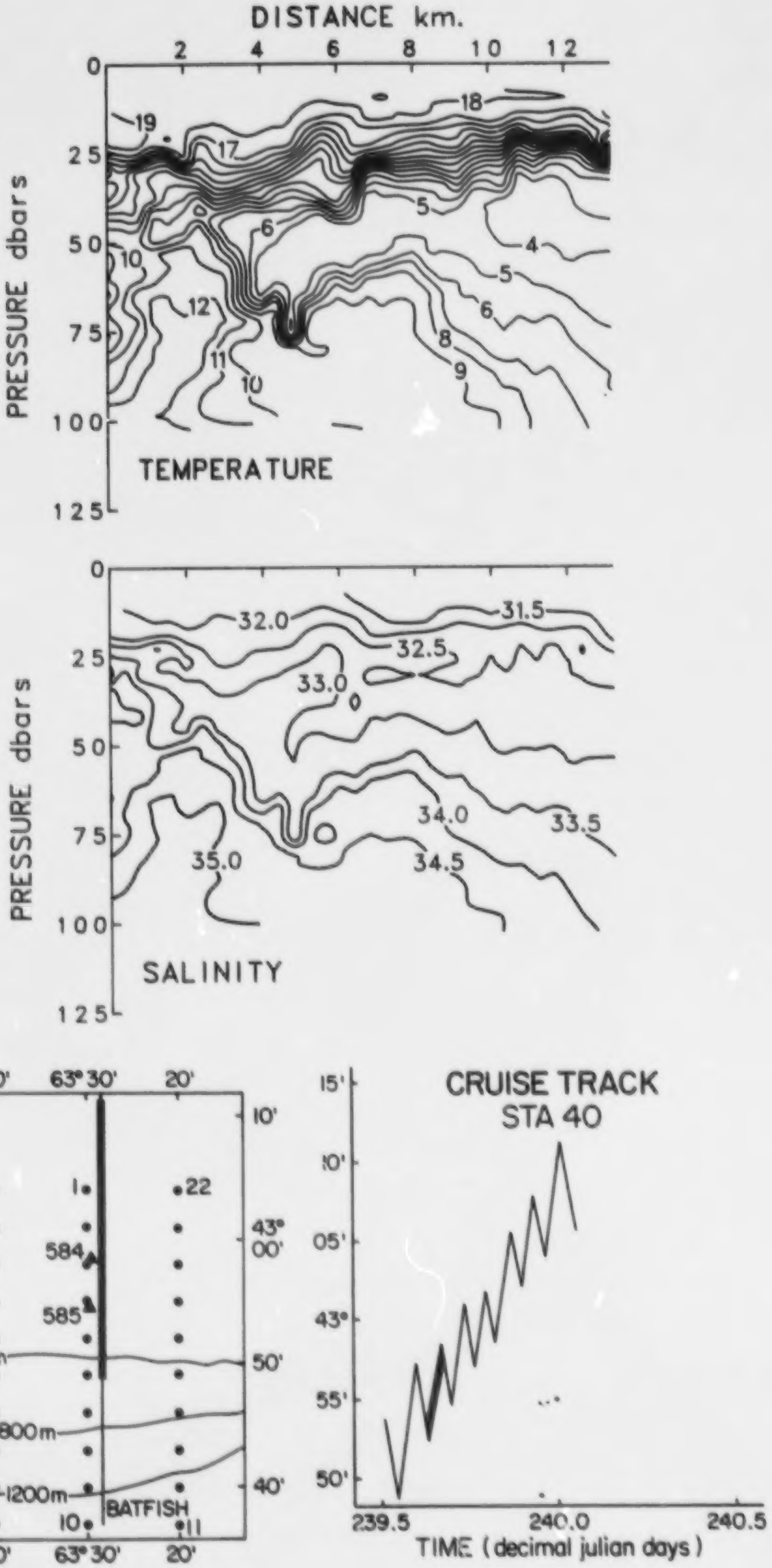

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
19
17
18
5
4
6
10
12
11
10
5
6
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
31.5
32.5
33.0
34.0
33.5
35.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 236

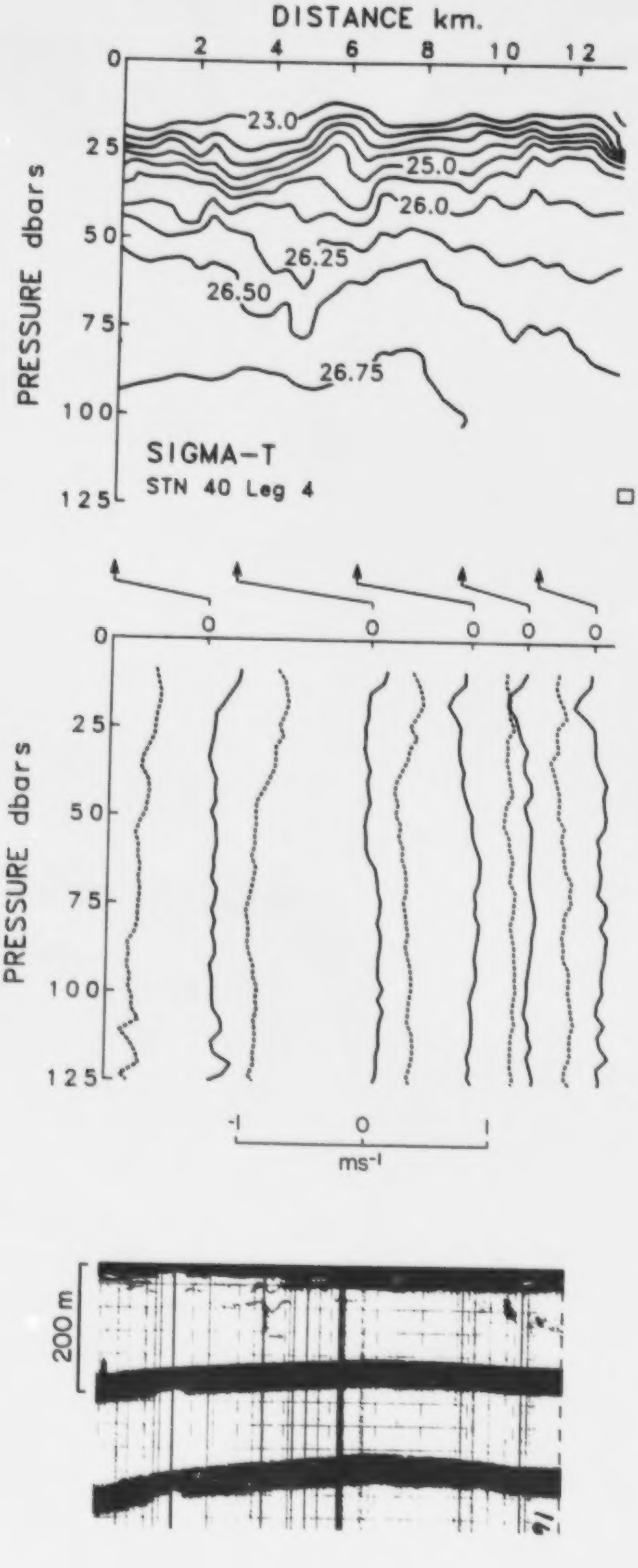

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
26.0
26.25
26.50
26.75
SIGMA-T
STN 40 Leg 4
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 237

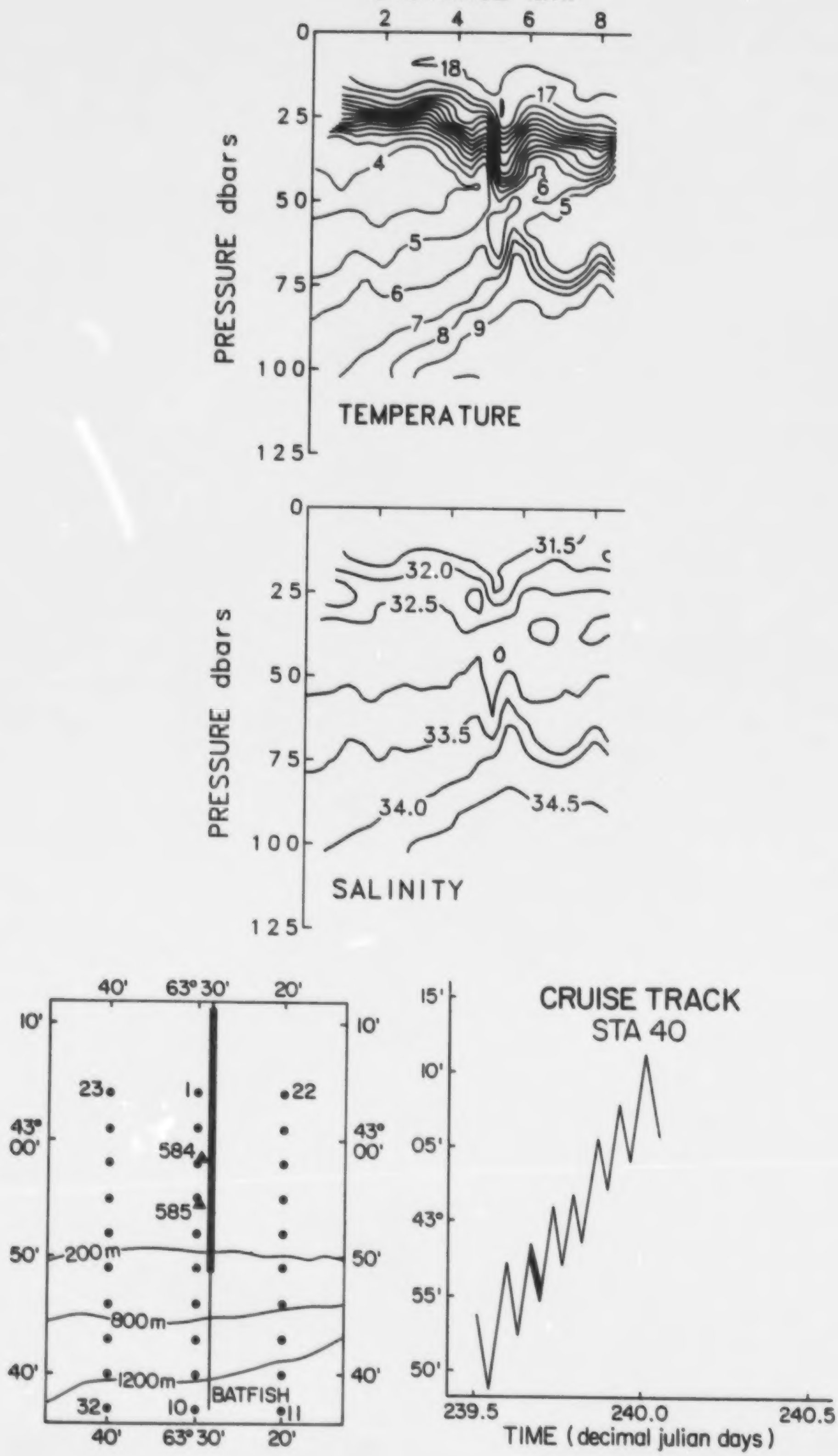

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
18
17
4
6
5
5
6
7
8
9
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 238

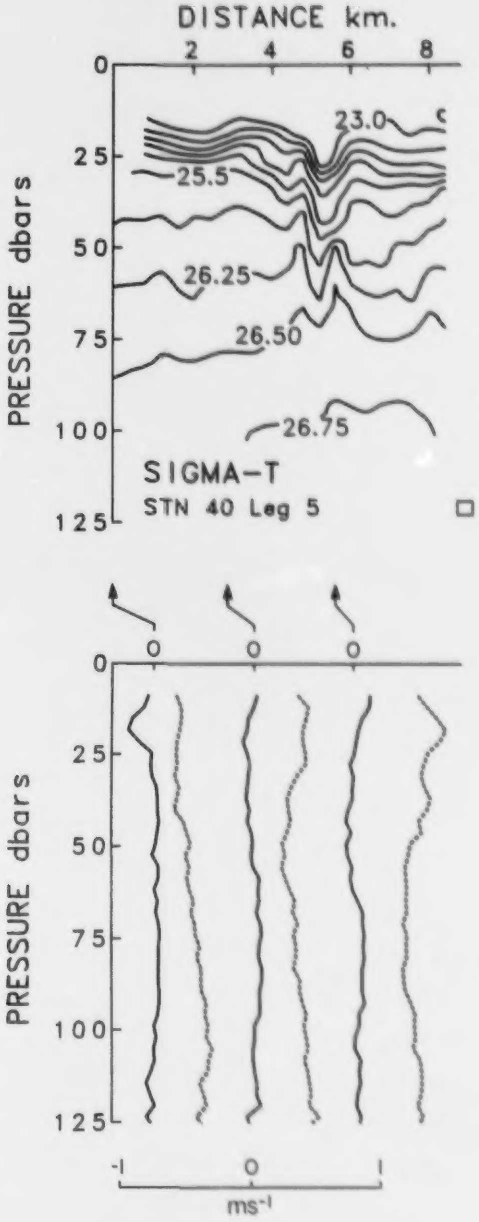

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.25
26.50
26.75
SIGMA-T
STN 40 Leg 5
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 239

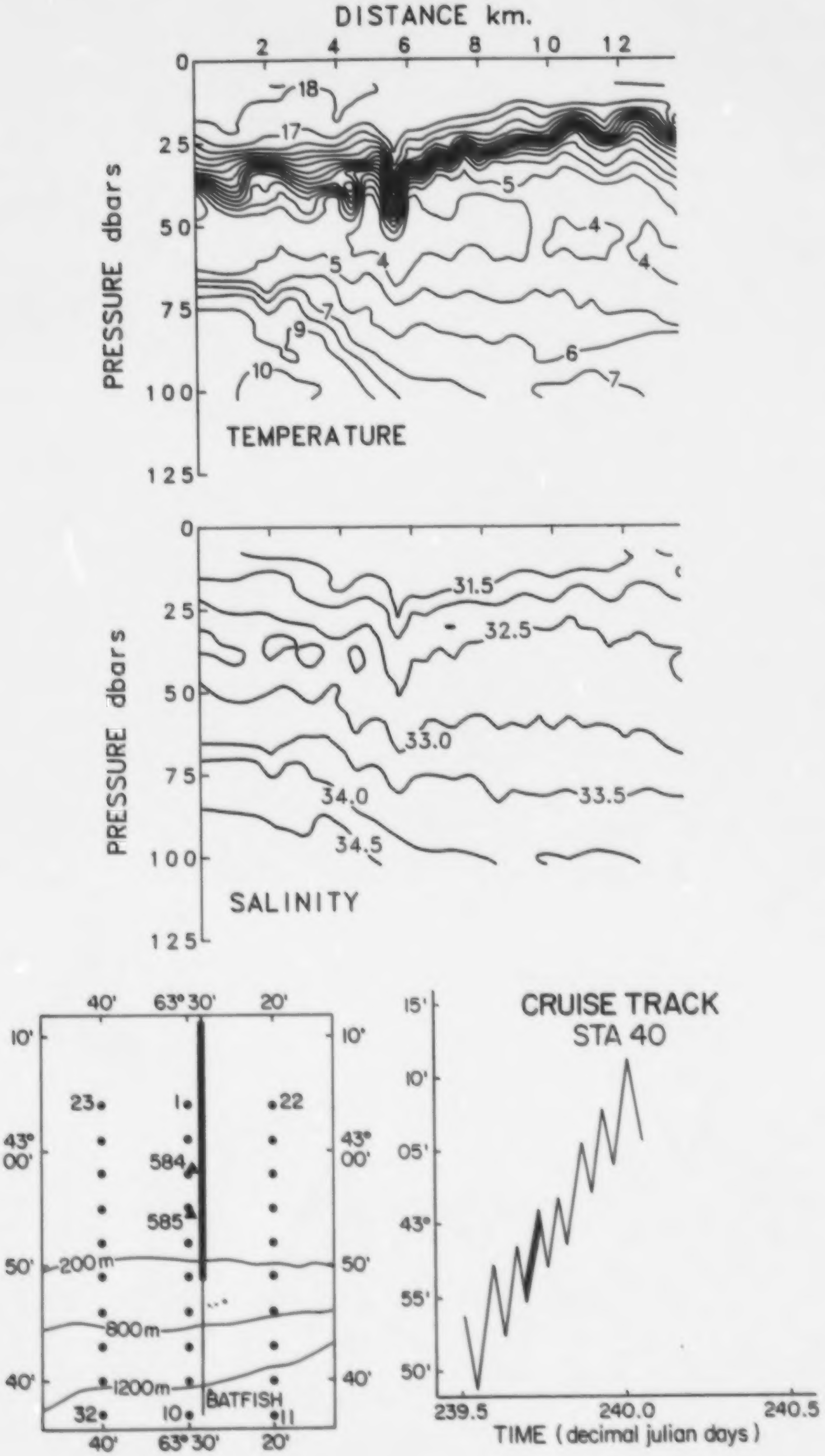

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
18
17
5
4
5
4
4
7
9
10
6
7
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 240

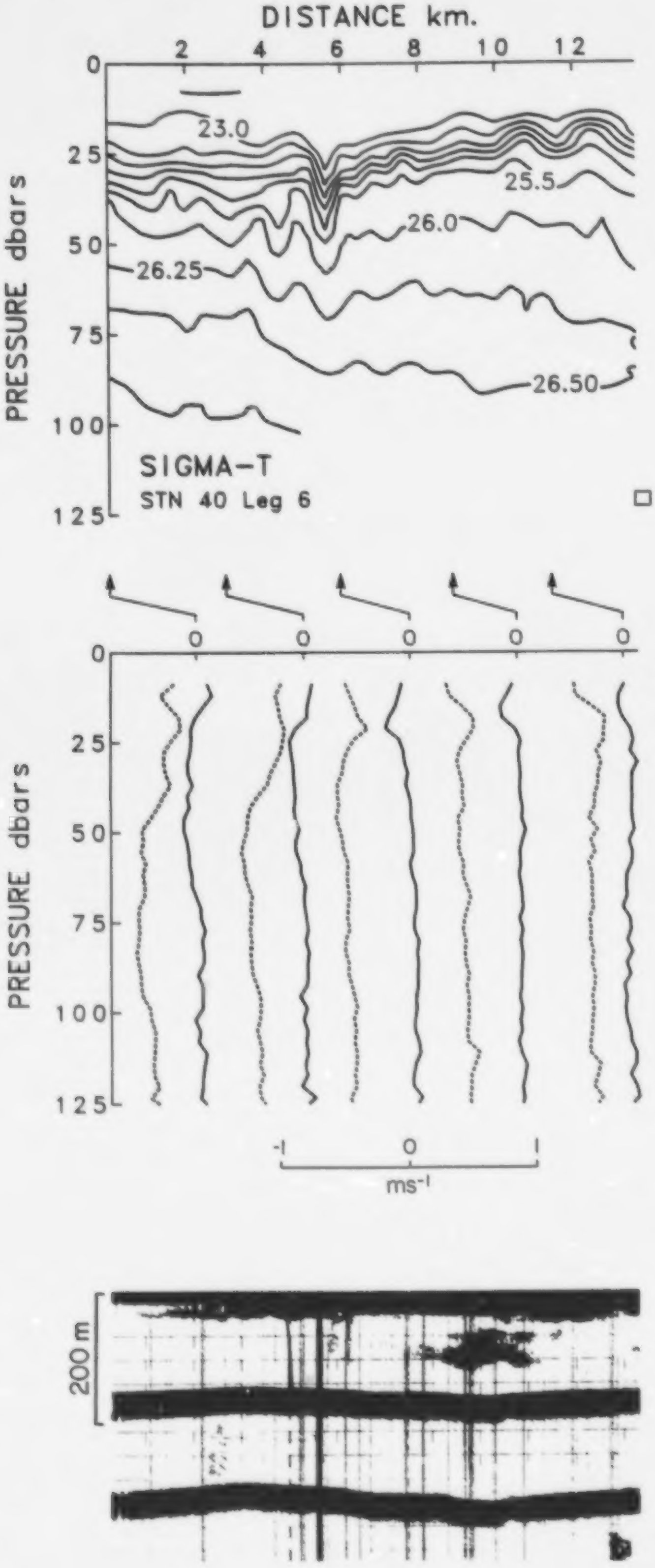

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 40 Leg 6
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m
b

Fig. 241

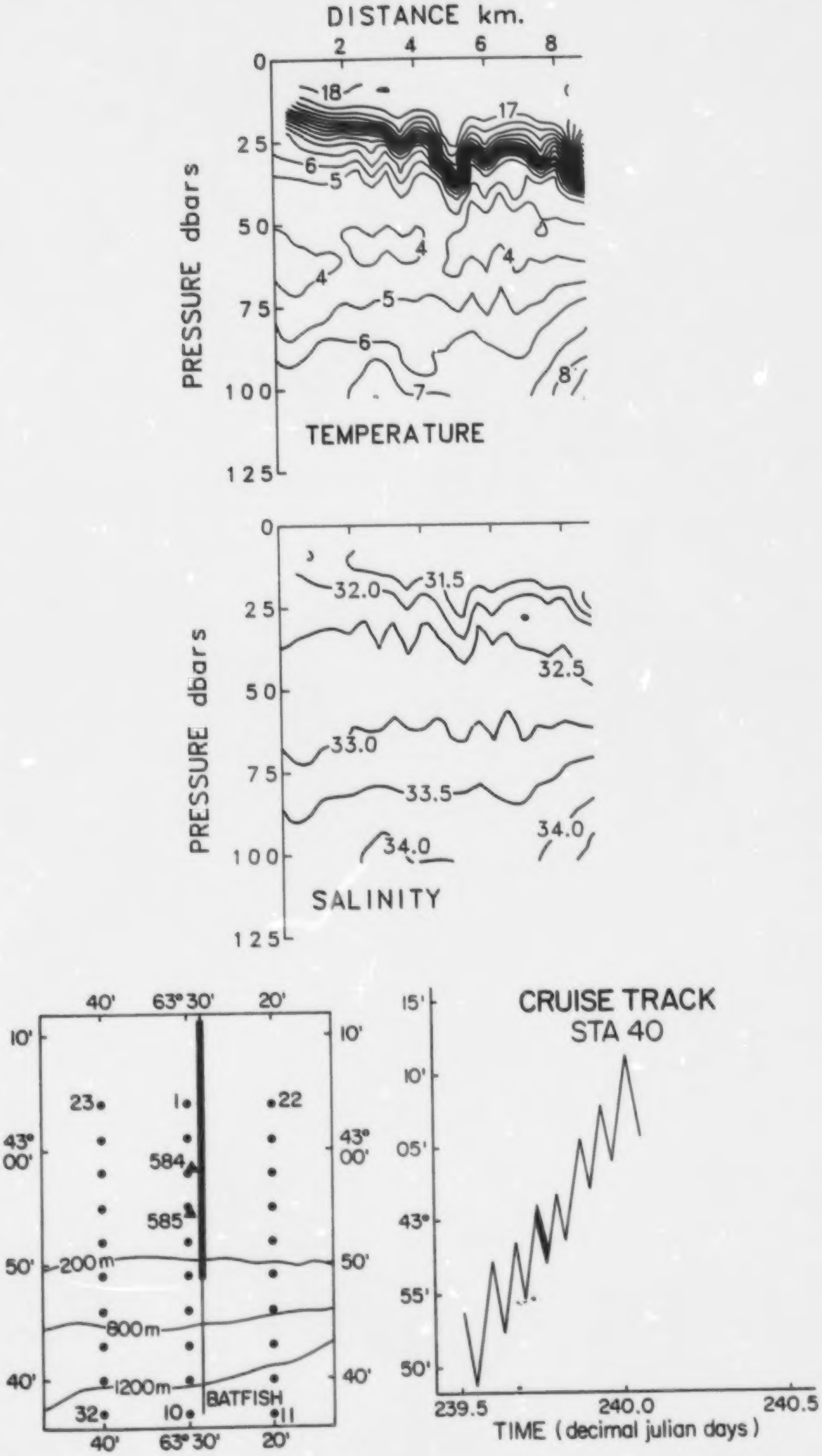

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
18
17
6
5
4
4
4
5
6
7
8
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
32.0
31.5
32.5
33.0
33.5
34.0
34.0
SALINITY
40'
63° 30'
20'
10'
10'
43°
00'
43°
00'
50'
50'
40'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
40'
63° 30'
20'
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 242

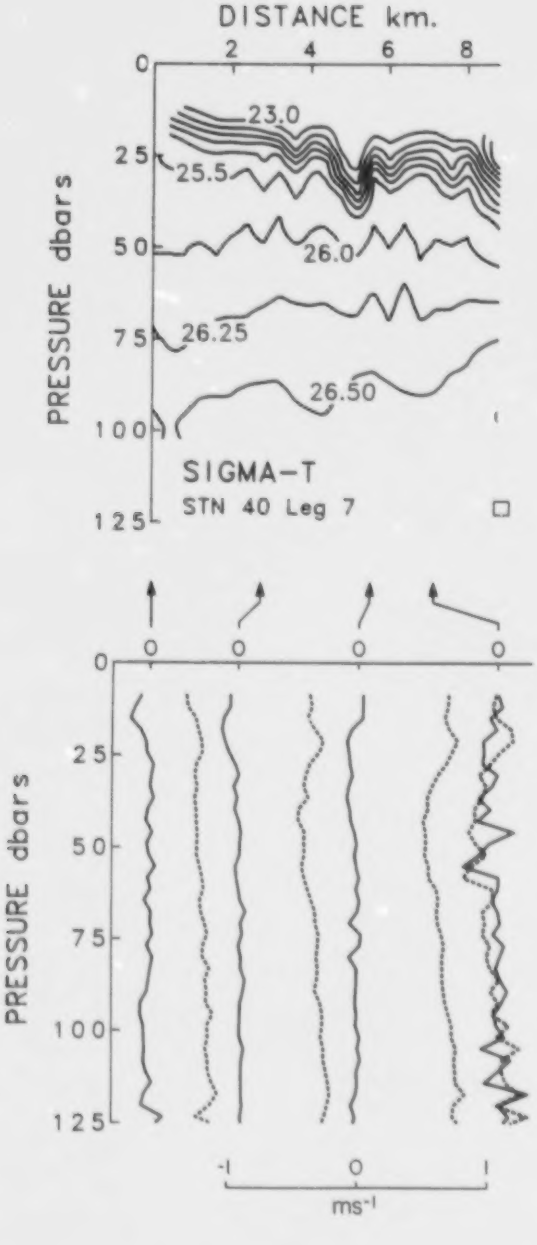

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 40 Leg 7
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 243

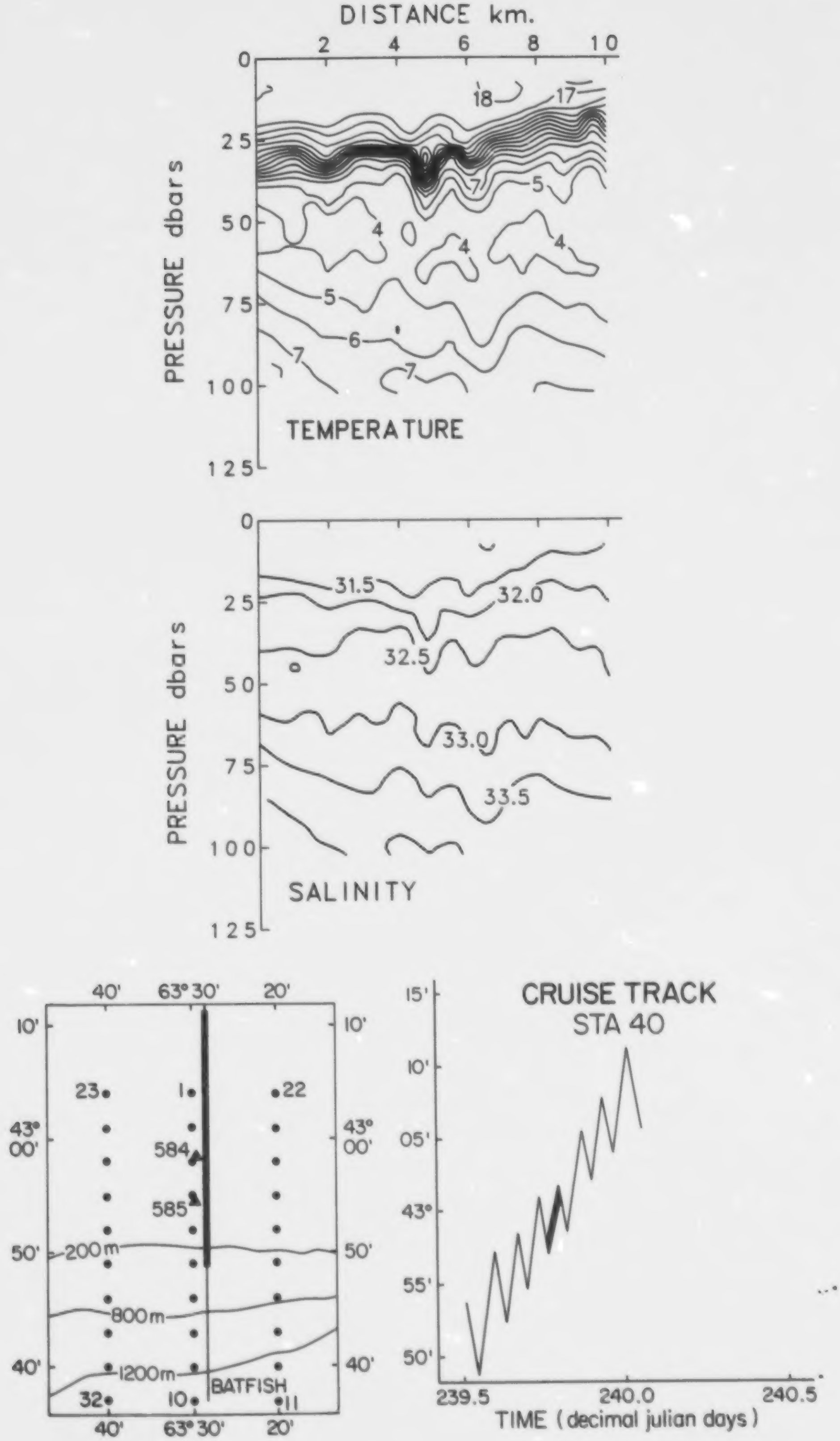

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
18
17
7
5
4
4
4
5
6
7
7
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 244

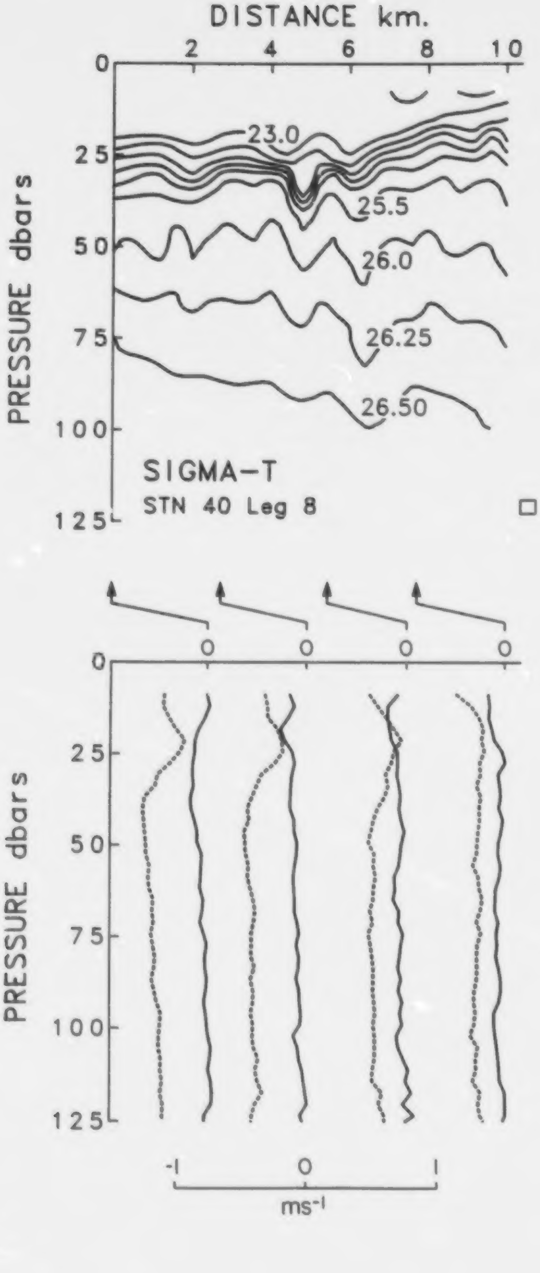

DISTANCE km.
0
2
4
6
8
10
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 40 Leg 8
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 245

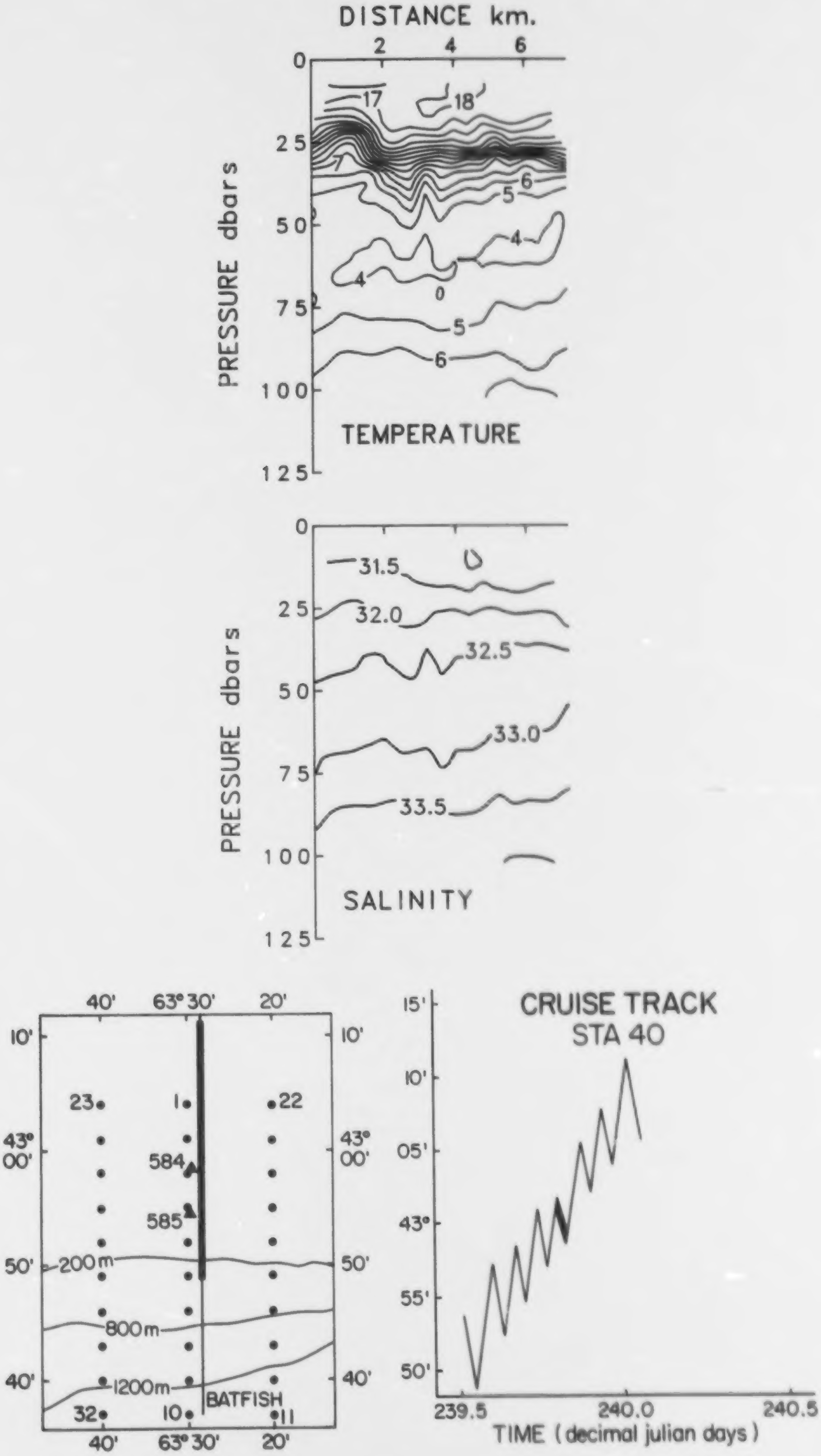

DISTANCE km.
2
4
6
0
25
50
75
100
125
PRESSURE dbars
17
18
7
6
5
4
4
0
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 246

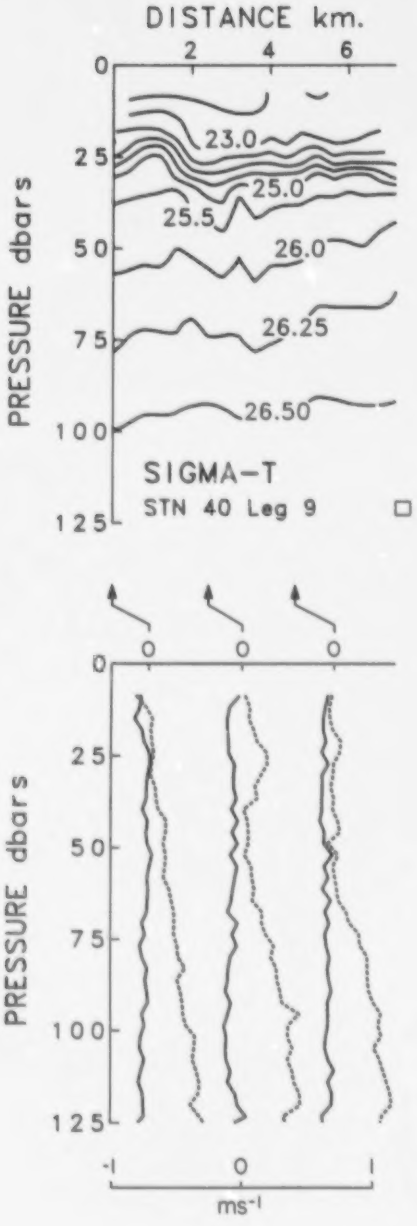

DISTANCE km.
2
4
6
0
25
50
75
100
125
PRESSURE dbars
23.0
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 40 Leg 9
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 247

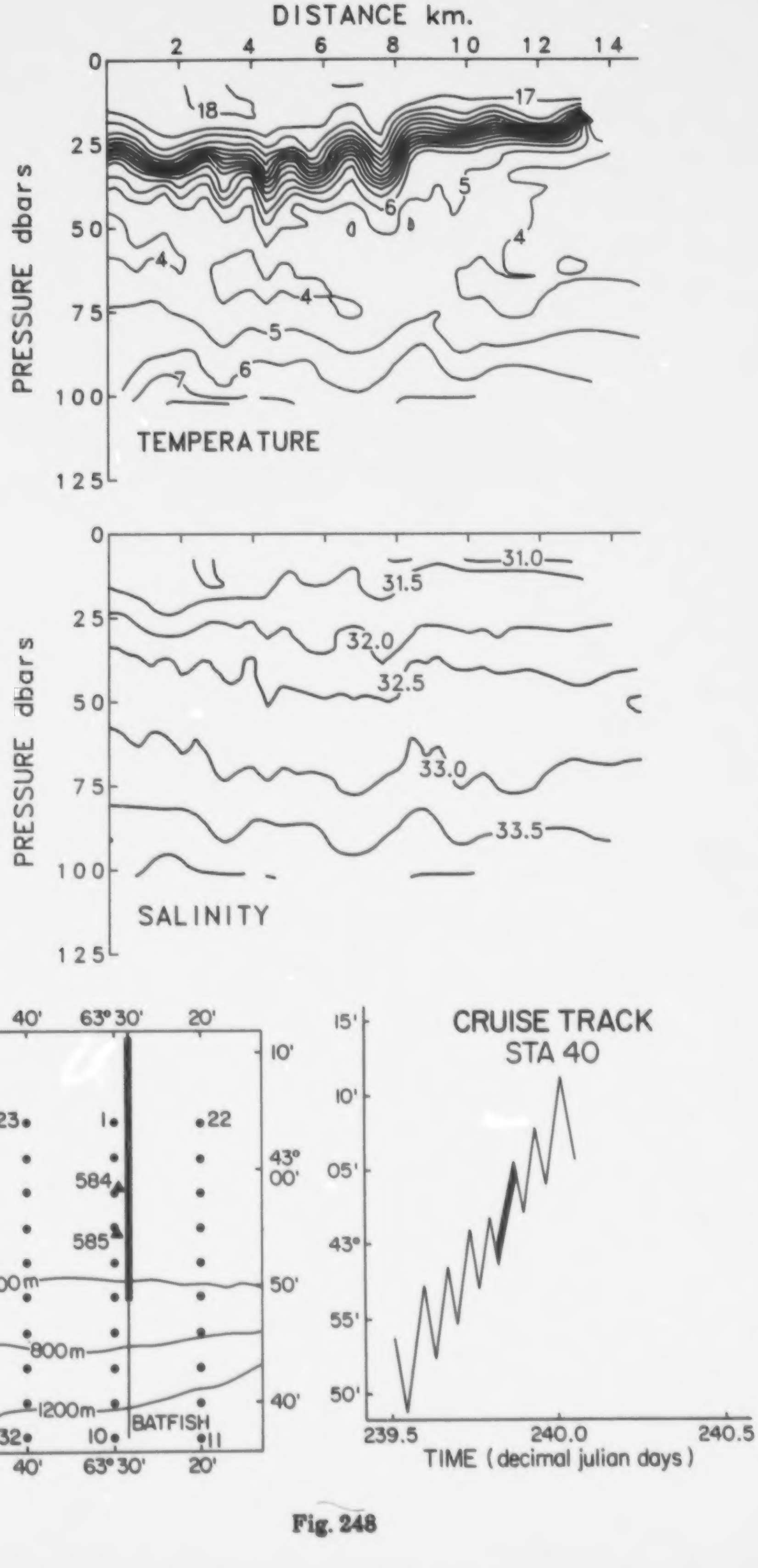

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
18
17
5
6
4
4
4
5
6
7
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.0
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
10'
23
1
22
43°
00'
43°
00'
584
585
50'
200m
50'
800m
40'
1200m
40'
32
10
BATFISH
11
40'
63° 30'
20'
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 248

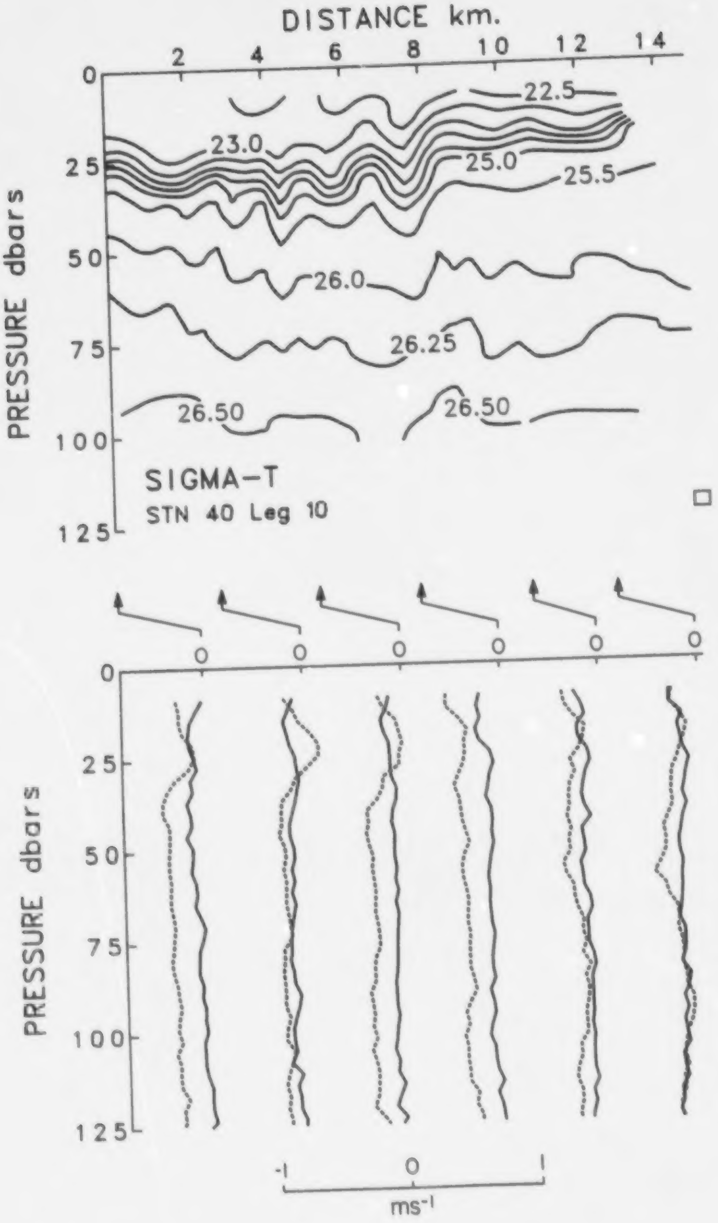

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
22.5
23.0
25.0
25.5
26.0
26.25
26.50
26.50
SIGMA-T
STN 40 Leg 10
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 249

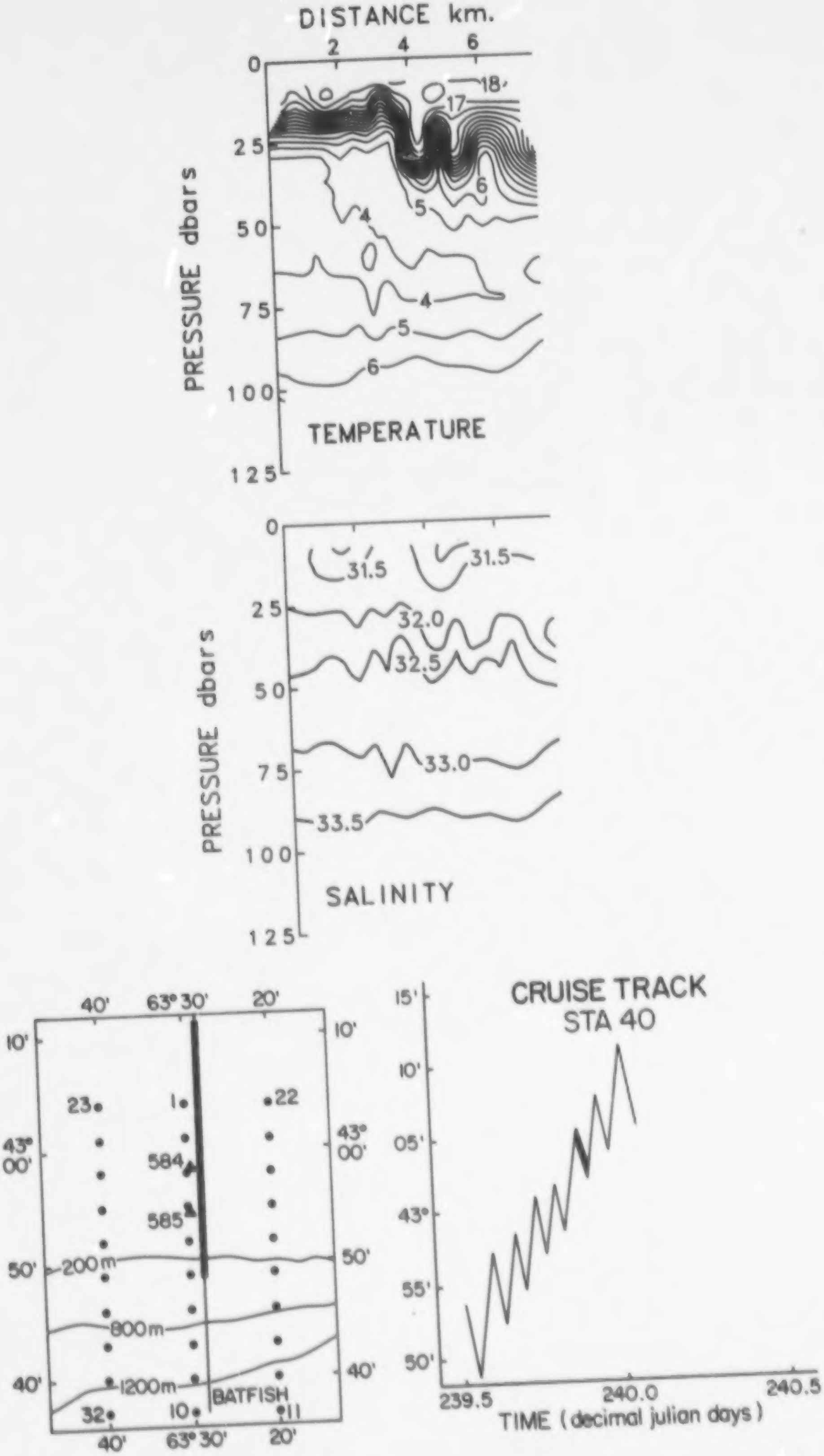

DISTANCE km.
2
4
6
0
25
50
75
100
125
PRESSURE dbars
18
17
6
5
4
4
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 250

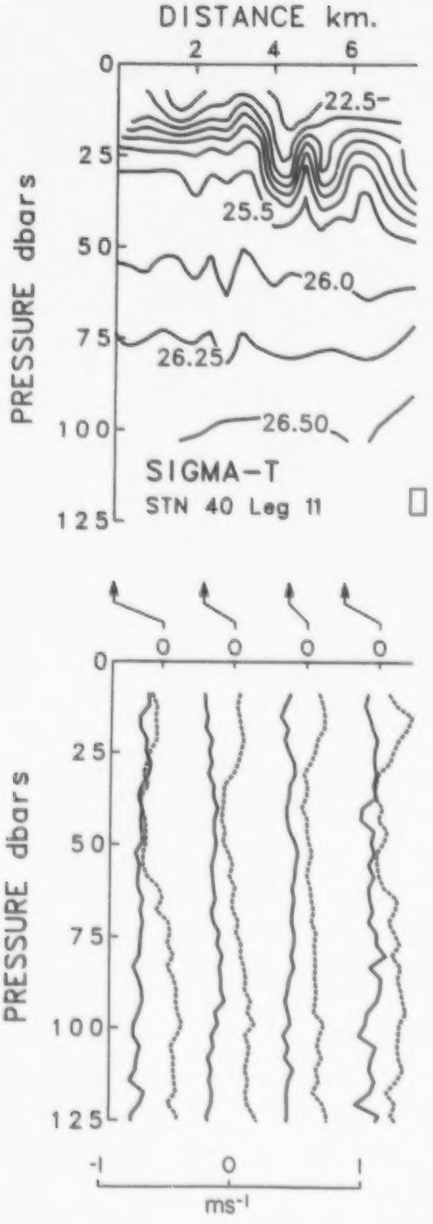

DISTANCE km.
2
4
6
0
25
50
75
100
125
PRESSURE dbars
22.5
25.5
26.0
26.25
26.50
SIGMA-T
STN 40 Leg 11
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 251

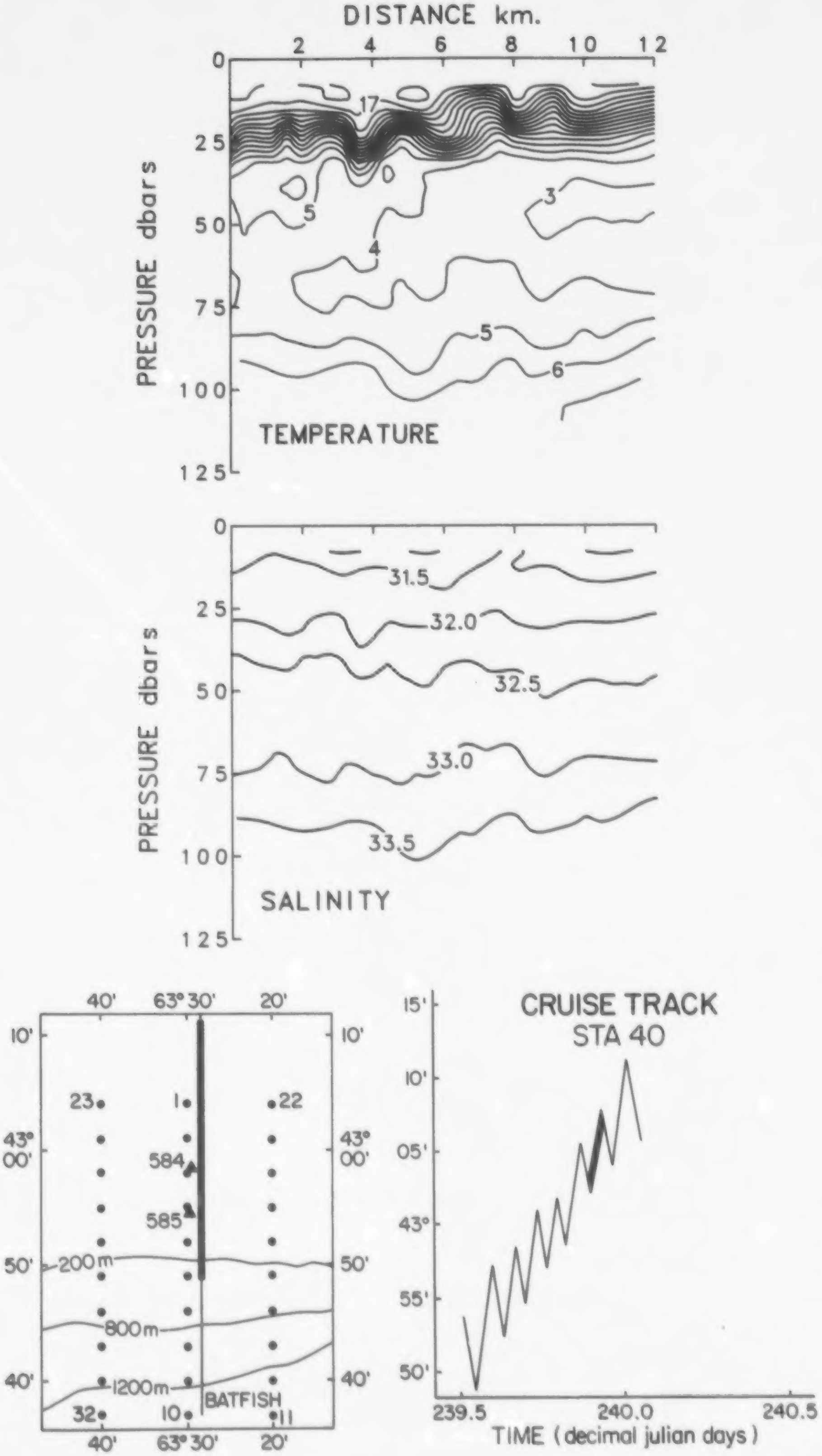

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
25
50
75
100
125
17
0
5
3
4
5
6
TEMPERATURE
0
25
50
75
100
125
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 252

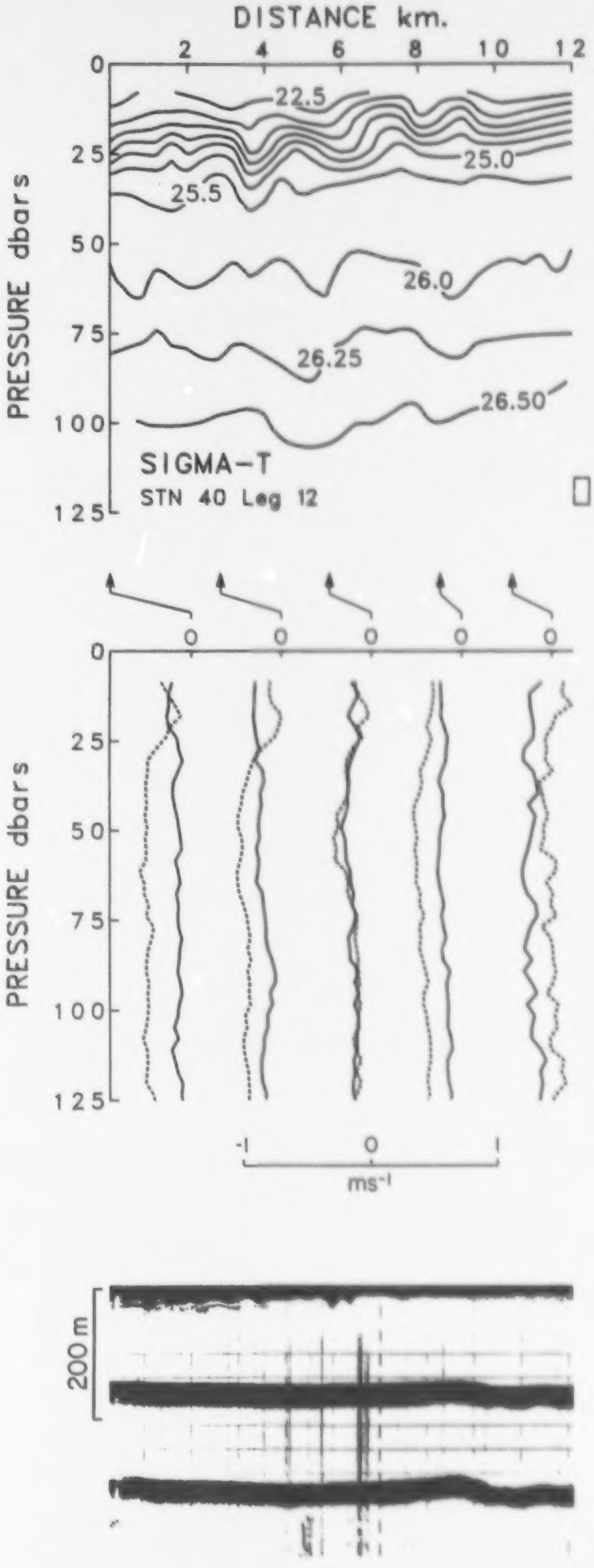

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
22.5
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 40 Leg 12
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 253

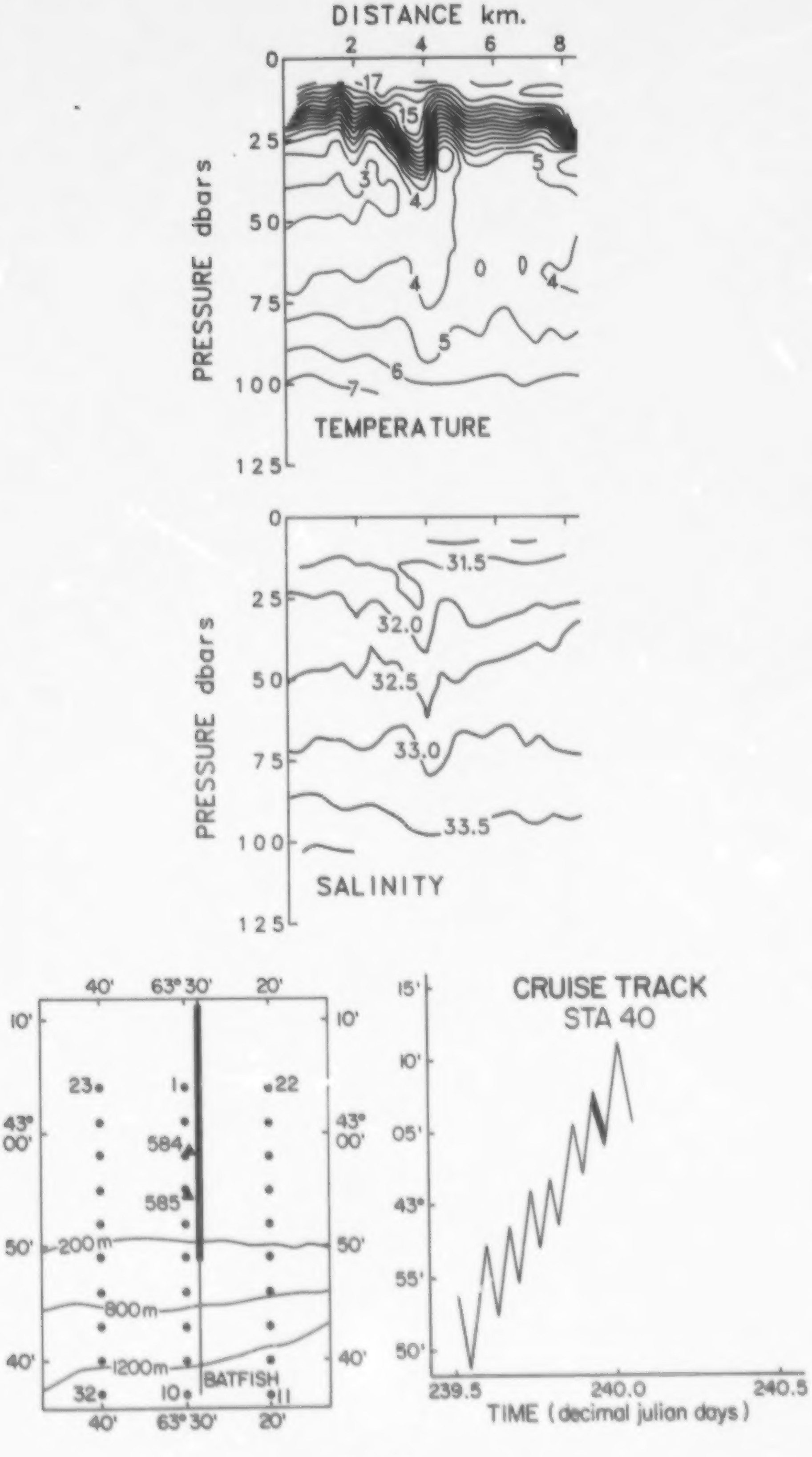

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
17
15
5
3
4
0
0
4
4
5
6
7
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 254

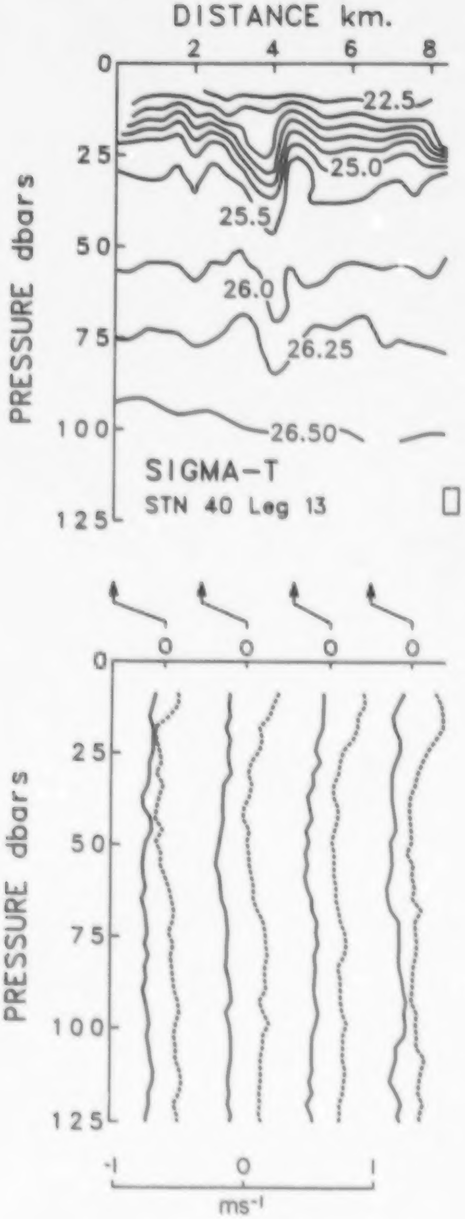

DISTANCE km.
0
2
4
6
8
22.5
25.0
25.5
26.0
26.25
26.50
25
50
75
100
125
PRESSURE dbars
SIGMA-T
STN 40 Leg 13
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 255

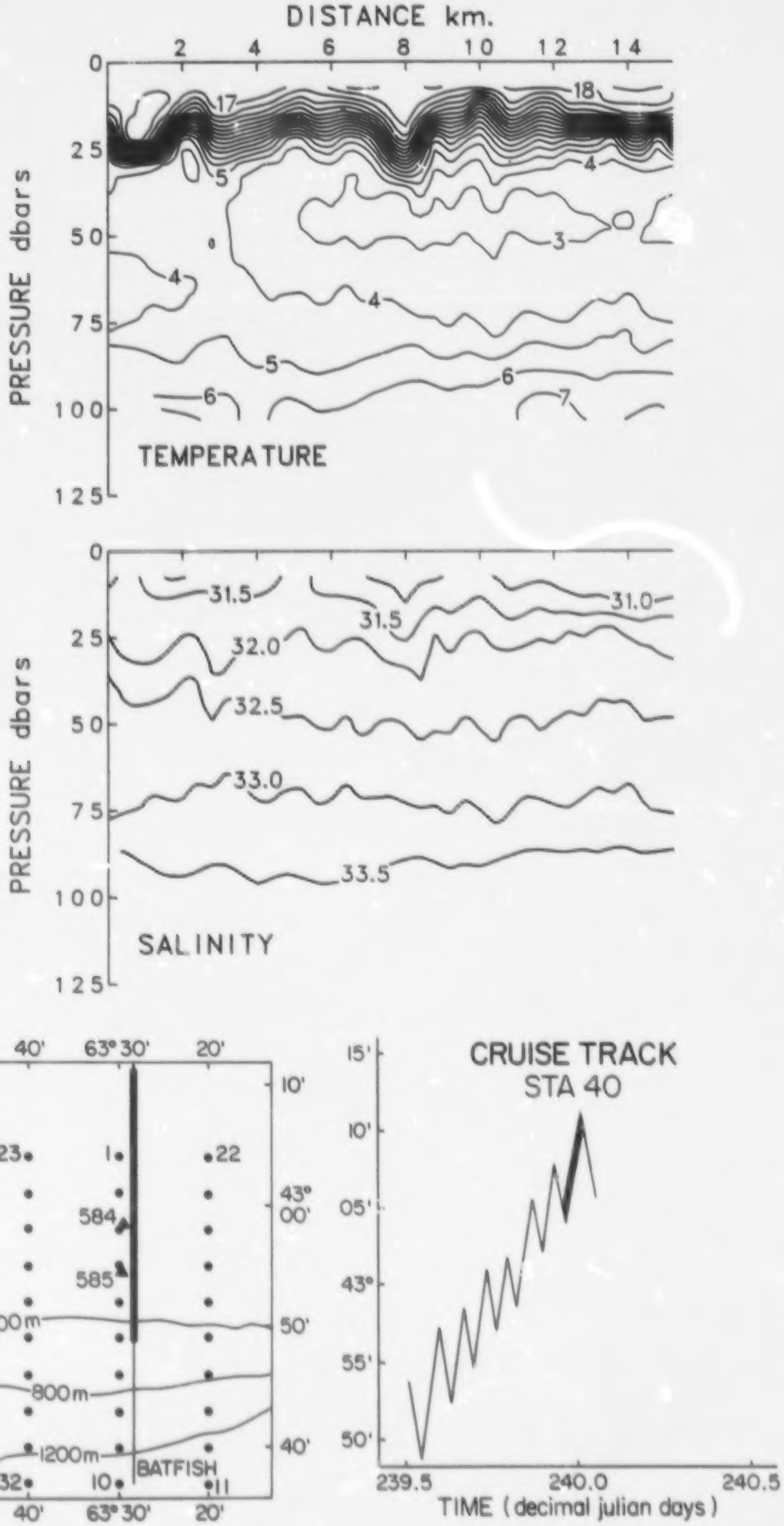

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
17
18
5
4
3
4
4
5
6
6
7
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
31.0
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 256

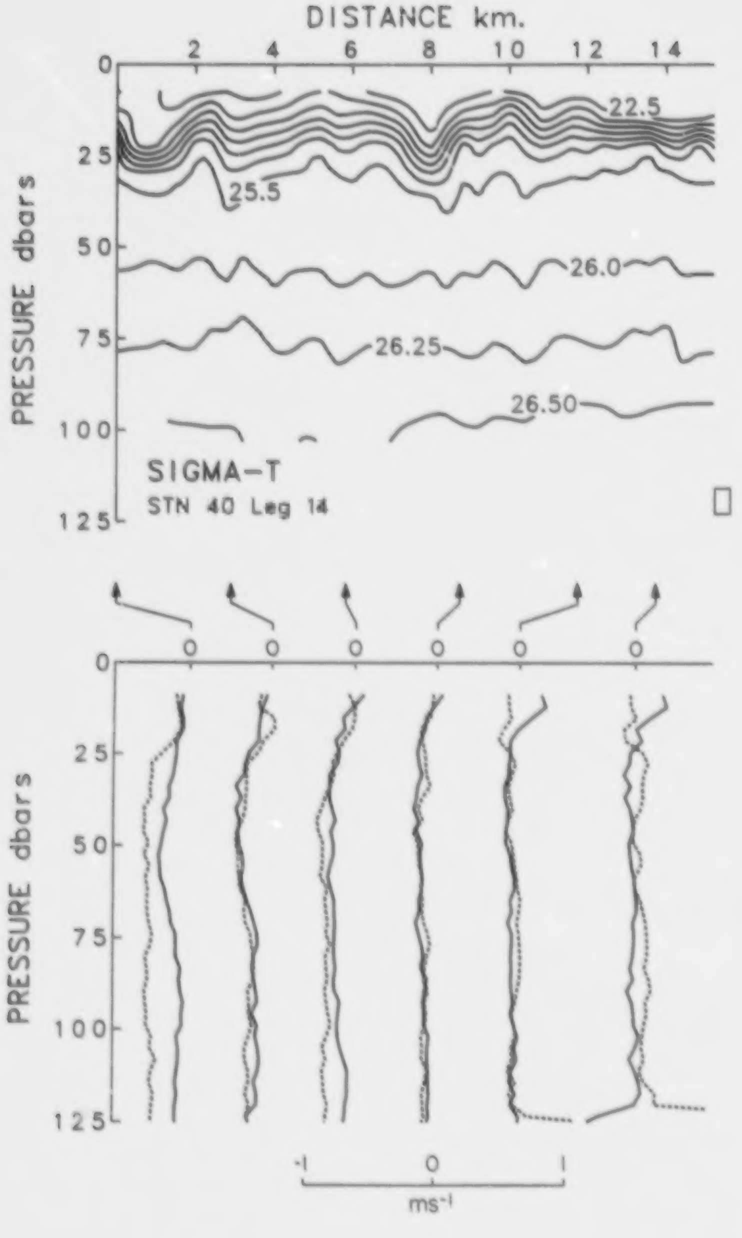

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
22.5
25.5
26.0
26.25
26.50
SIGMA-T
STN 40 Leg 14
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 257

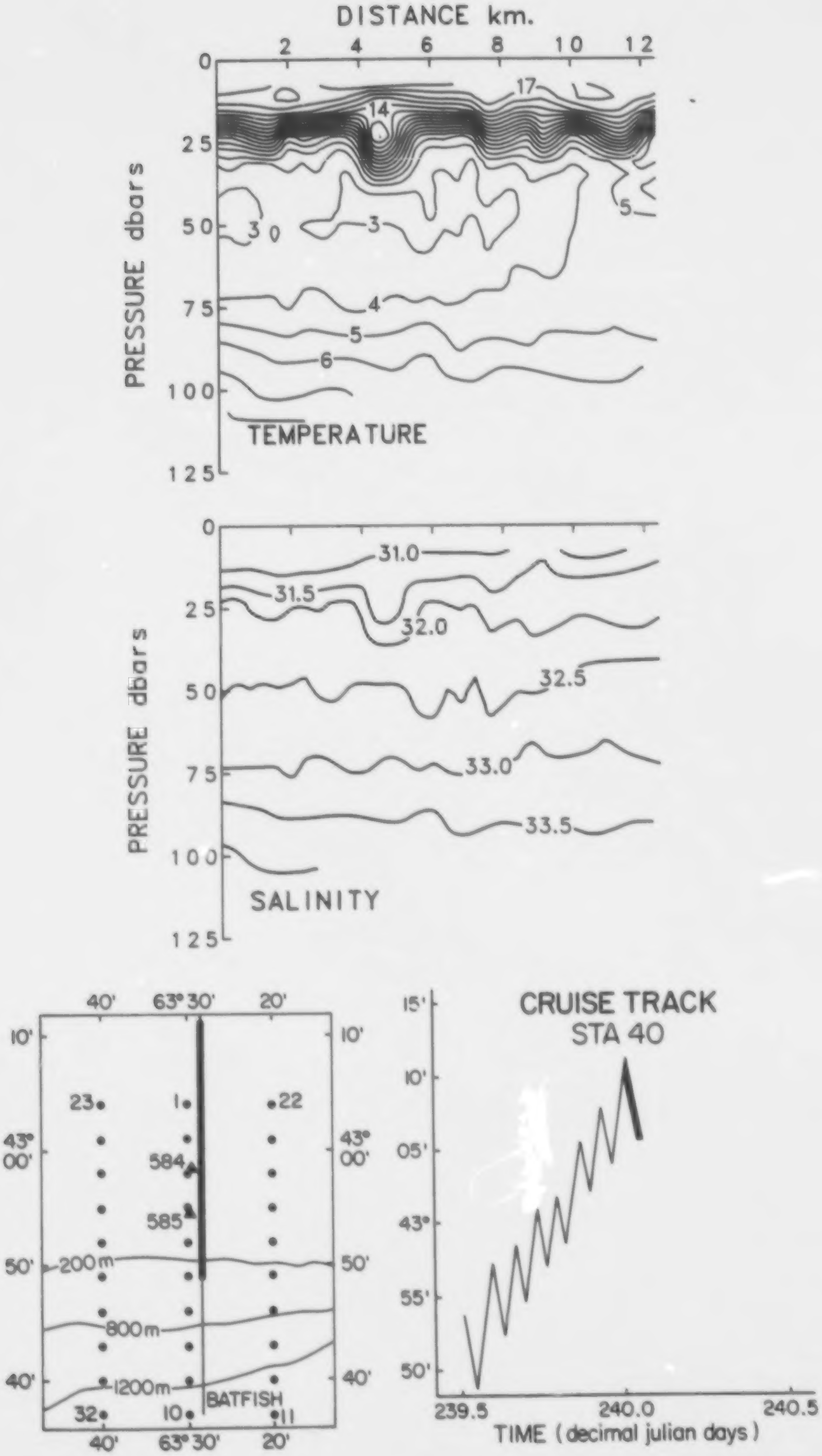

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
17
14
3
5
30
3
4
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.0
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 40
15'
10'
05'
43°
55'
50'
239.5
240.0
240.5
TIME (decimal julian days)

Fig. 258

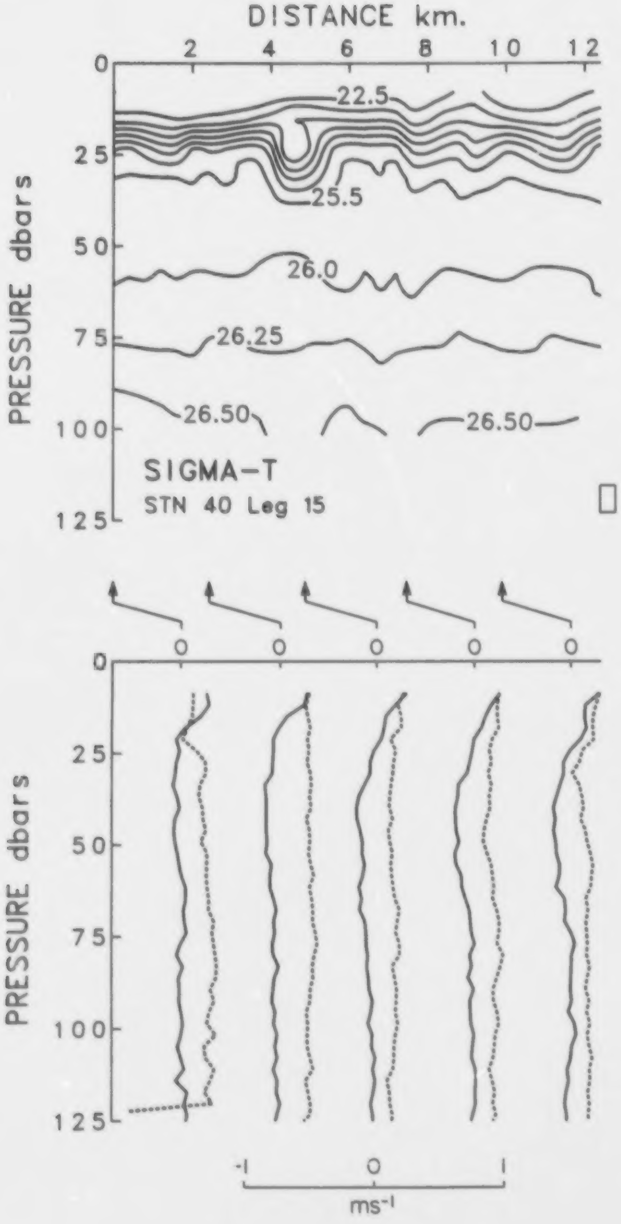

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
22.5
25.5
26.0
26.25
26.50
26.50
SIGMA-T
STN 40 Leg 15
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 259

Figures 260-285

BATFISH station 41; 13 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

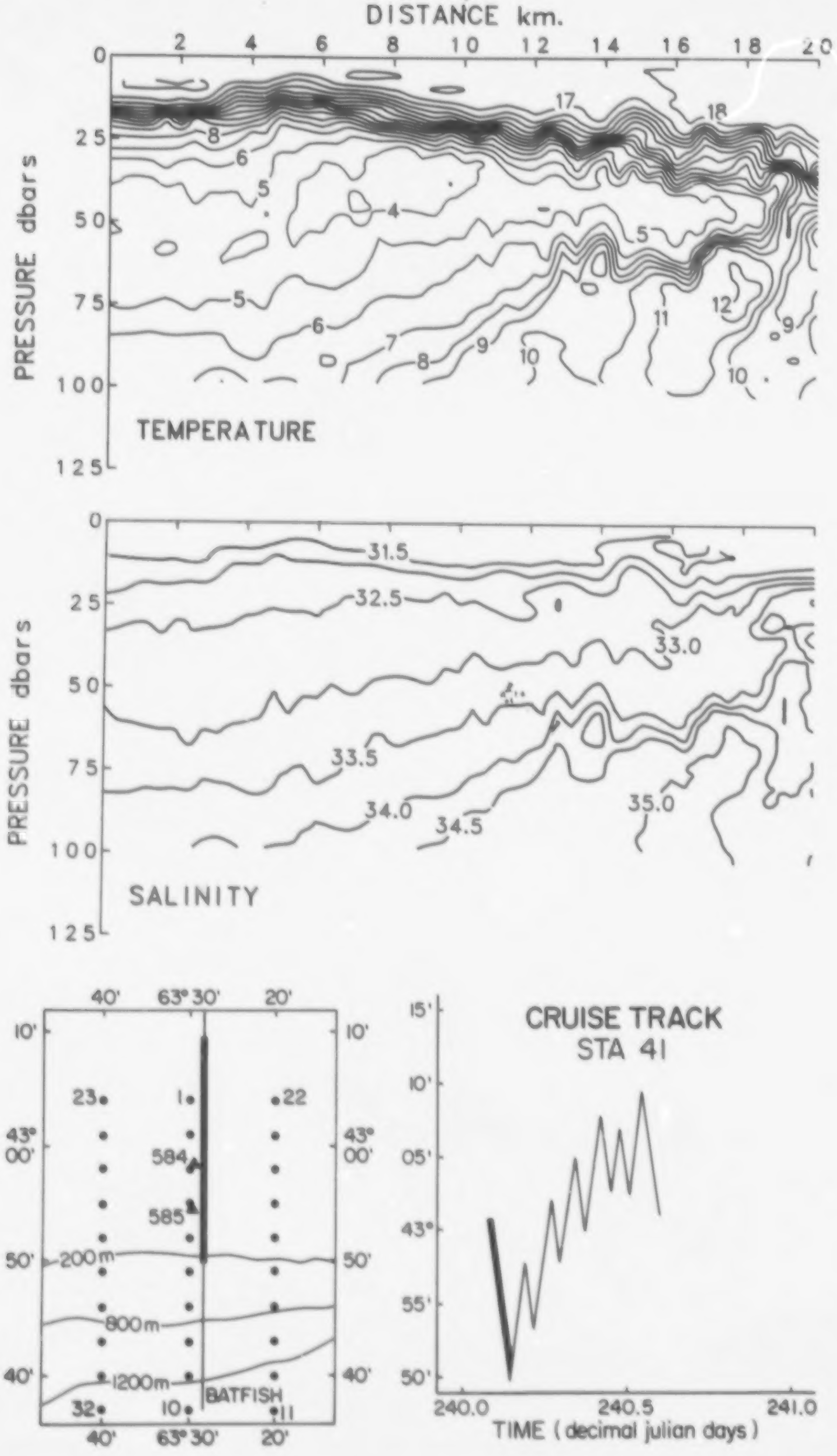

DISTANCE km.
2
4
6
8
10
12
14
16
18
20
0
25
50
75
100
125
PRESSURE dbars
17
18
8
6
5
4
5
5
6
7
8
9
10
11
12
9
10
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.5
33.0
33.5
34.0
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
10'
23
1
22
43°
00'
43°
00'
584
585
50'
50'
200m
800m
1200m
40'
40'
32
10
11
BATFISH
40'
63° 30'
20'
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 260

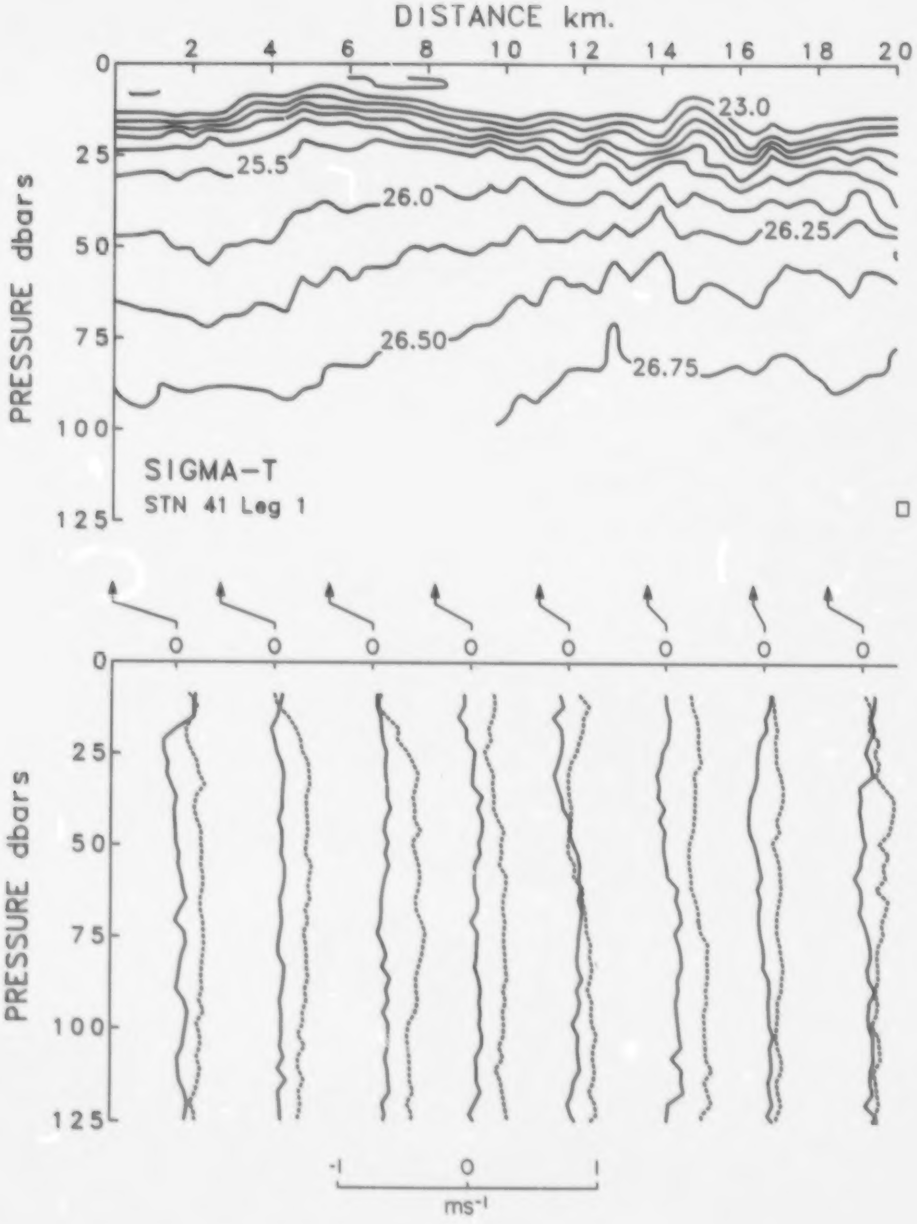

DISTANCE km.
2
4
6
8
10
12
14
16
18
20
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 41 Leg 1
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 261

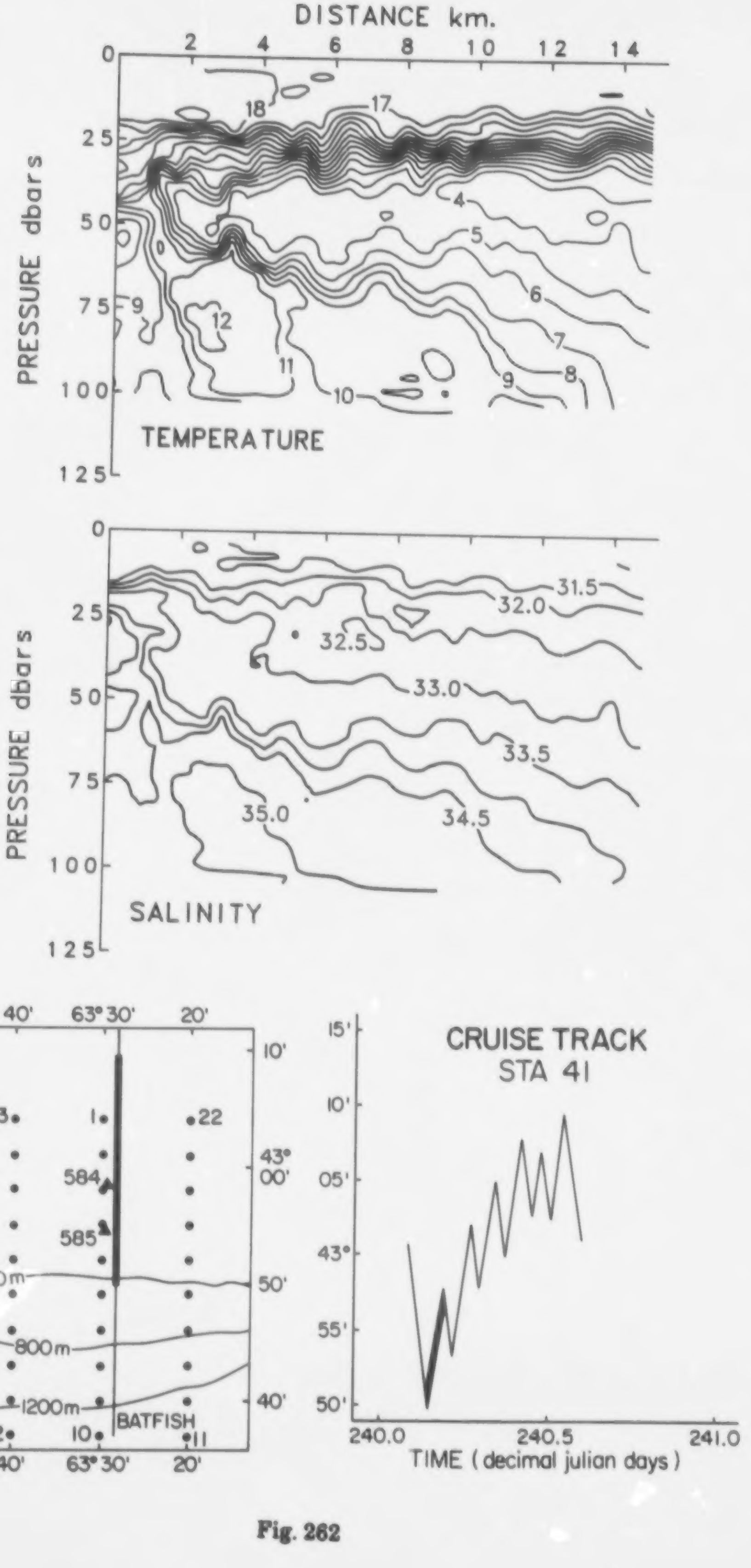

DISTANCE km.
0
2
4
6
8
10
12
14
25
50
75
100
125
PRESSURE dbars
18
17
4
5
6
7
8
9
9
10
11
12
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
34.5
35.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
-200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 262

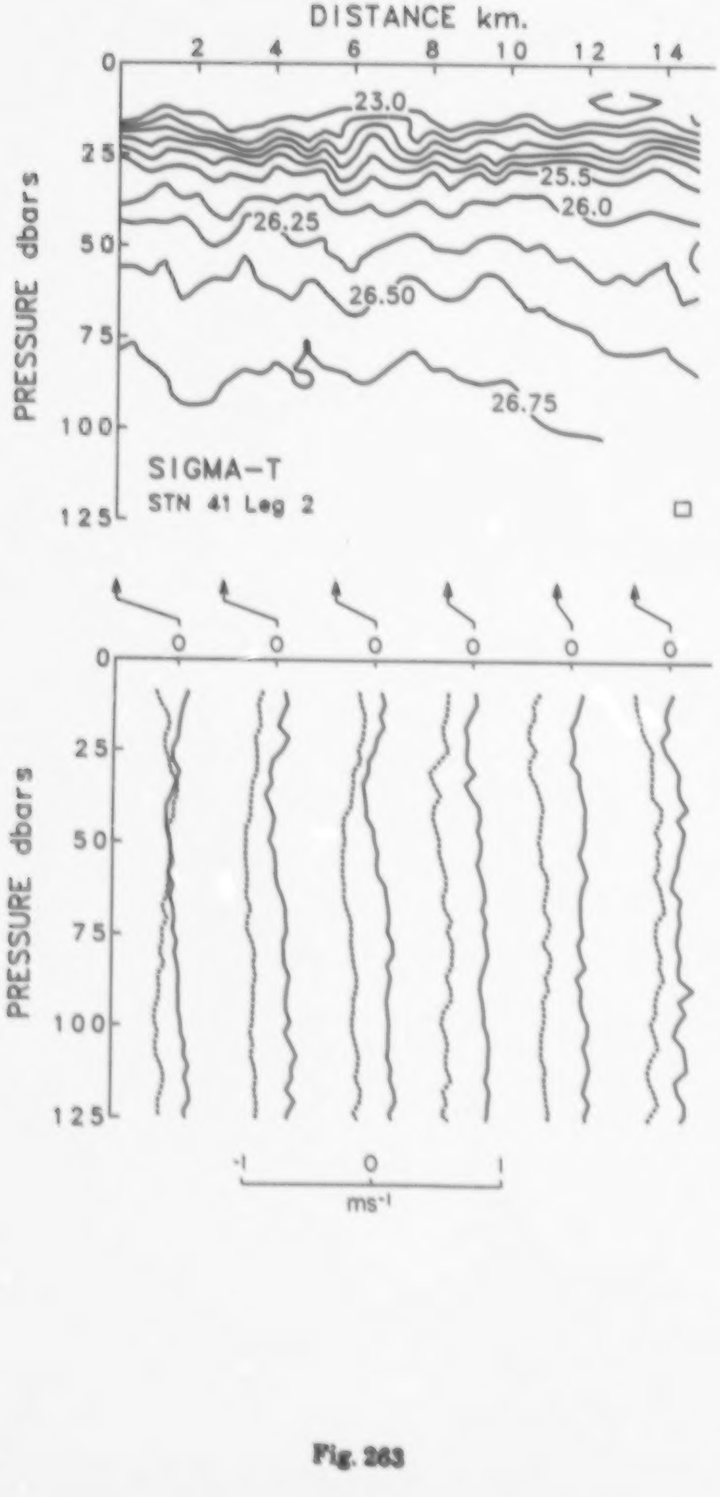

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 41 Leg 2
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 263

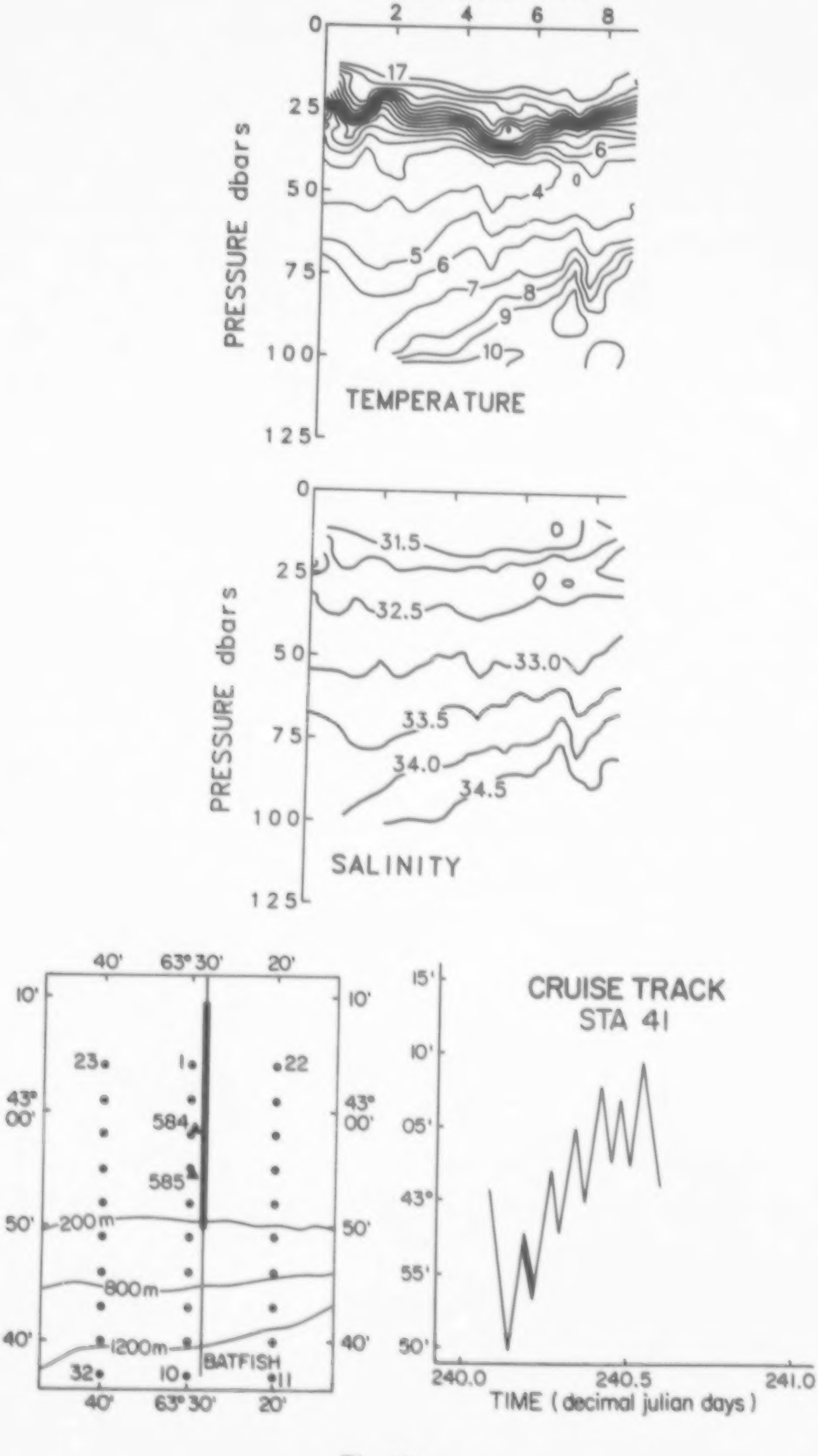

DISTANCE km.
0
2
4
6
8
PRESSURE dbars
25
50
75
100
125
17
6
0
4
5
6
7
8
9
10
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
31.5
0
0
32.5
33.0
33.5
34.0
34.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 264

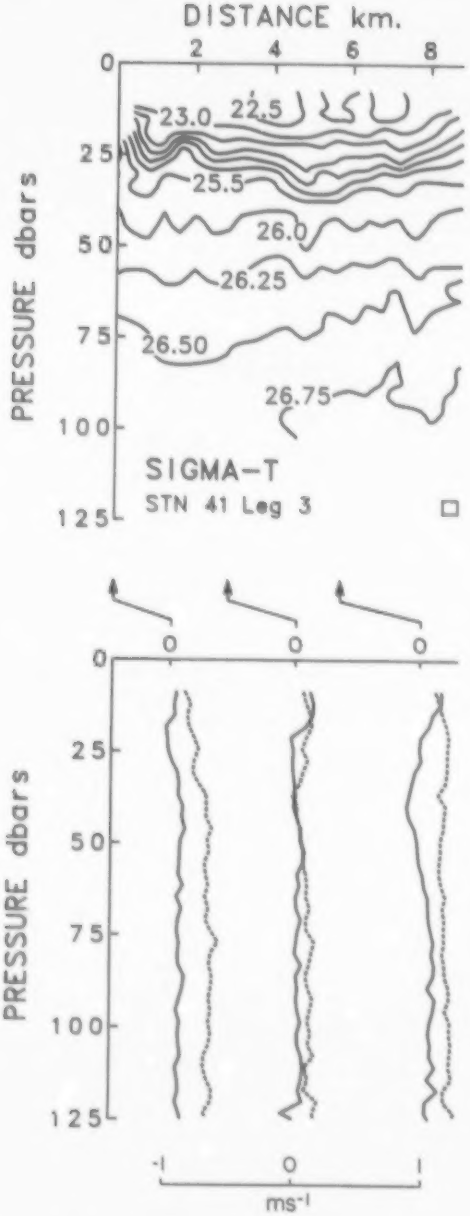

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
23.0
22.5
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 41 Leg 3
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 265

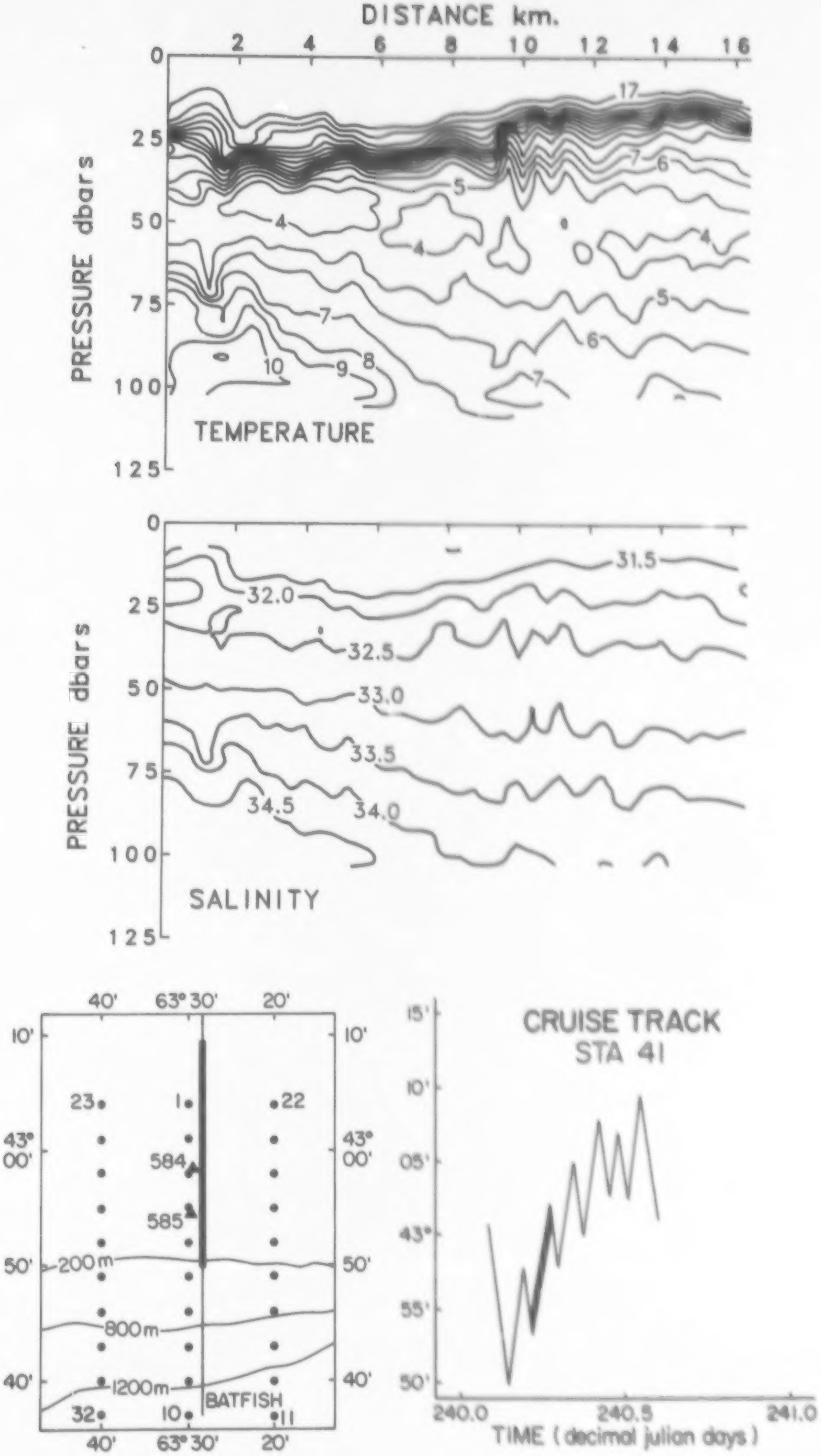

DISTANCE km.
2
4
6
8
10
12
14
16
0
25
50
75
100
125
PRESSURE dbars
17
7
6
5
4
4
4
5
7
6
10
9
8
7
TEMPERATURE
31.5
32.0
32.5
33.0
33.5
34.5
34.0
SALINITY
40'
63° 30'
20'
10'
23
1
22
43°
00'
584
585
50'
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 41
15'
05'
43°
55'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 266

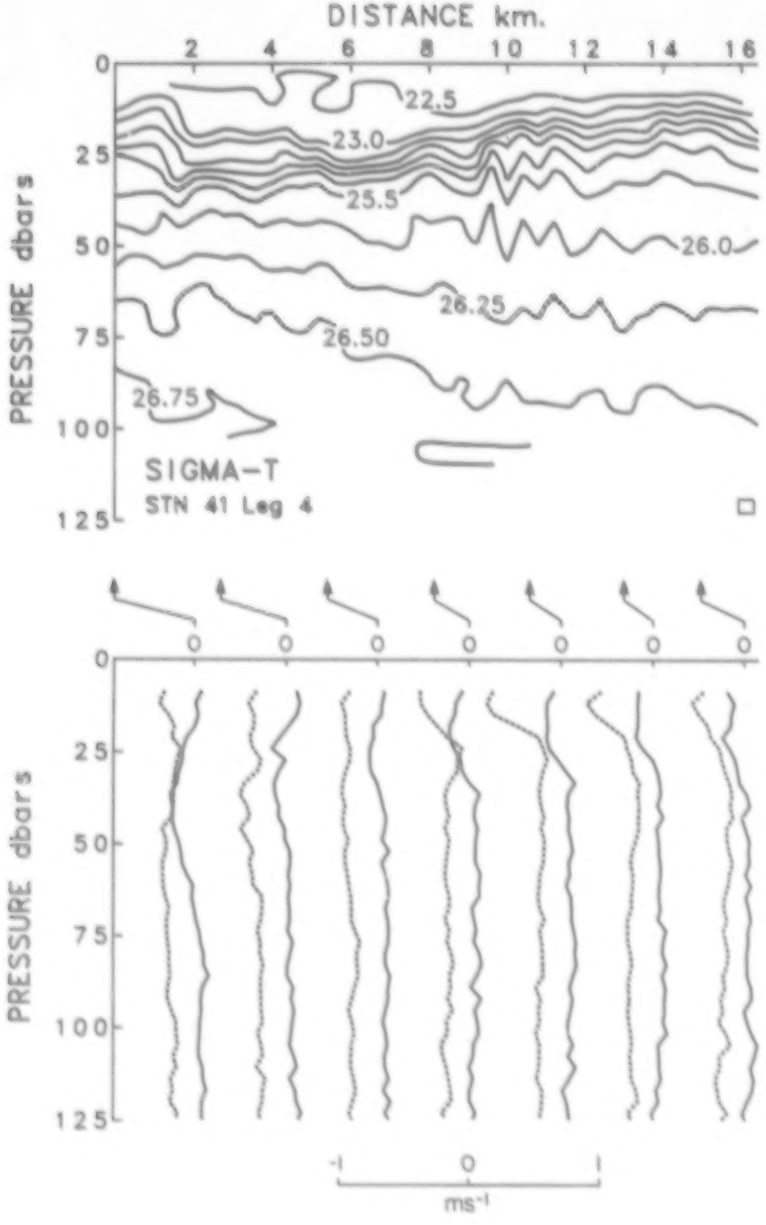

DISTANCE km.
2
4
6
8
10
12
14
16
0
25
50
75
100
125
PRESSURE dbars
22.5
23.0
25.5
26.0
26.25
26.50
26.75
SIGMA-T
STN 41 Leg 4
0
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹

Fig. 267

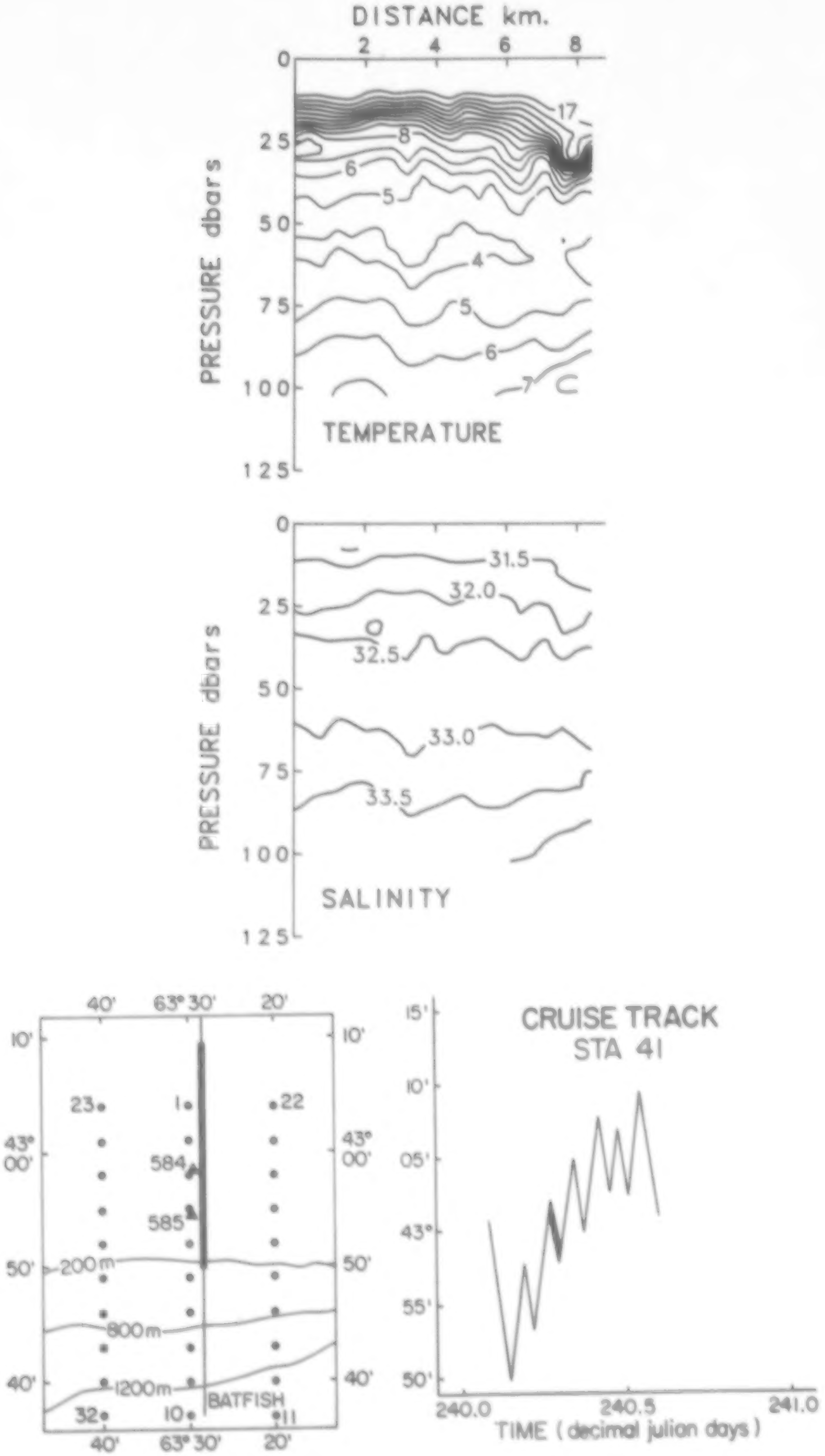

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
17
8
6
5
4
5
6
7
TEMPERATURE
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 268

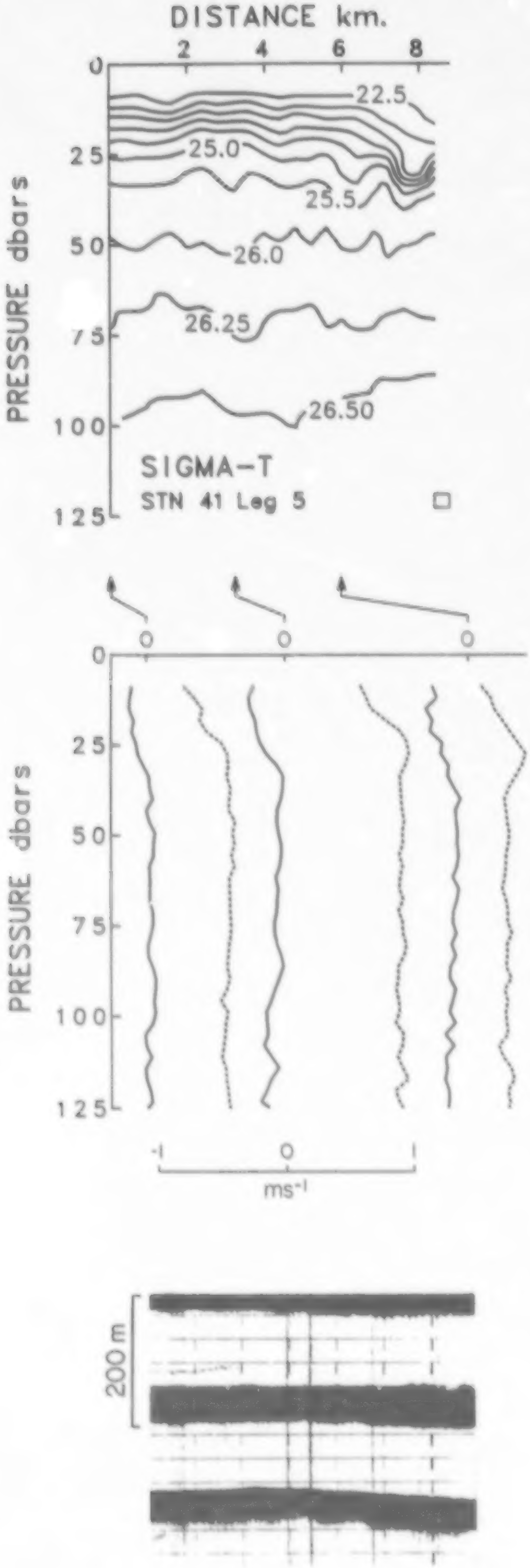

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
22.5
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 5
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 269

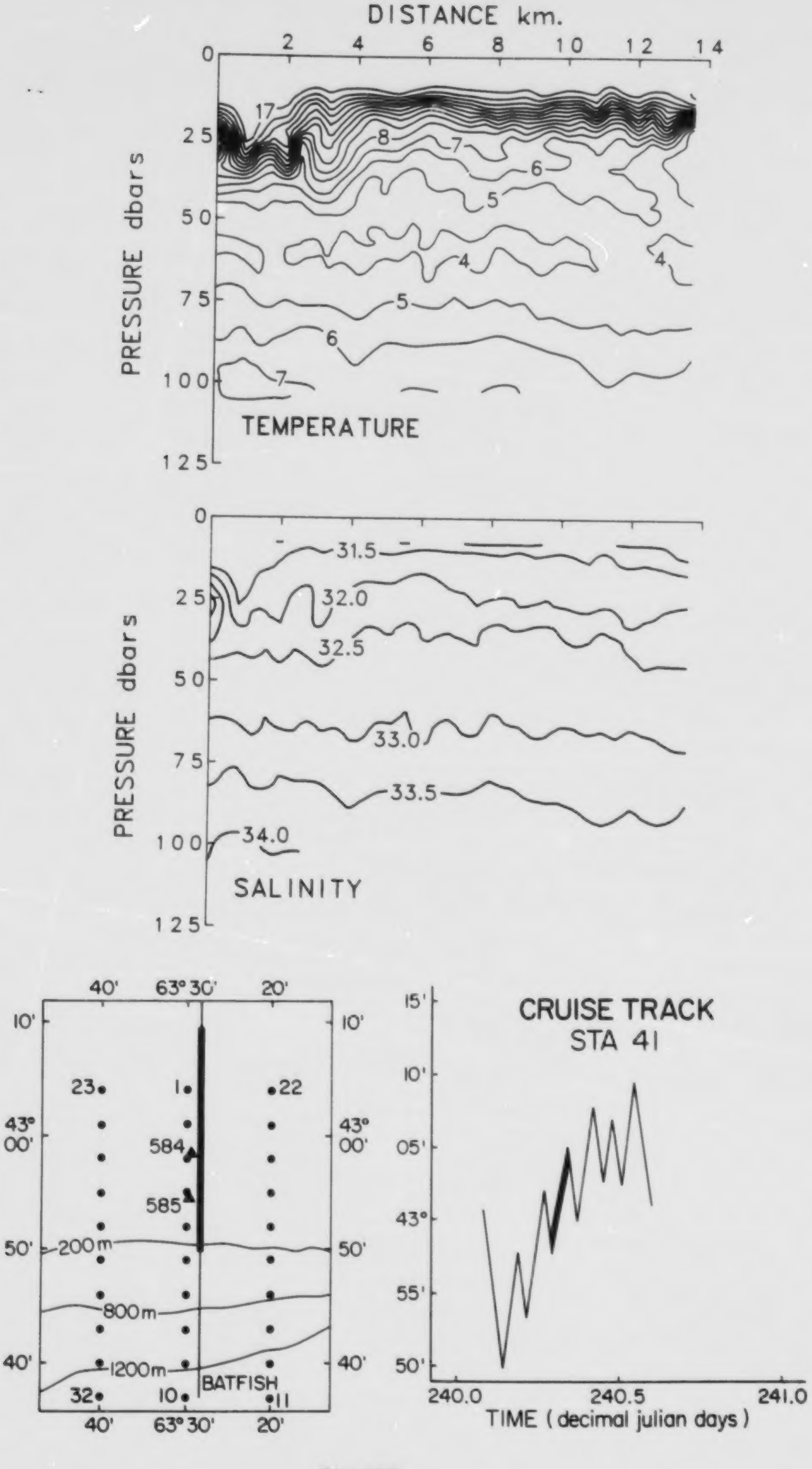

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
25
50
75
100
125
17
8
7
6
5
4
4
5
6
7
TEMPERATURE
31.5
32.0
32.5
33.0
33.5
34.0
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 41
15'
05'
55'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 270

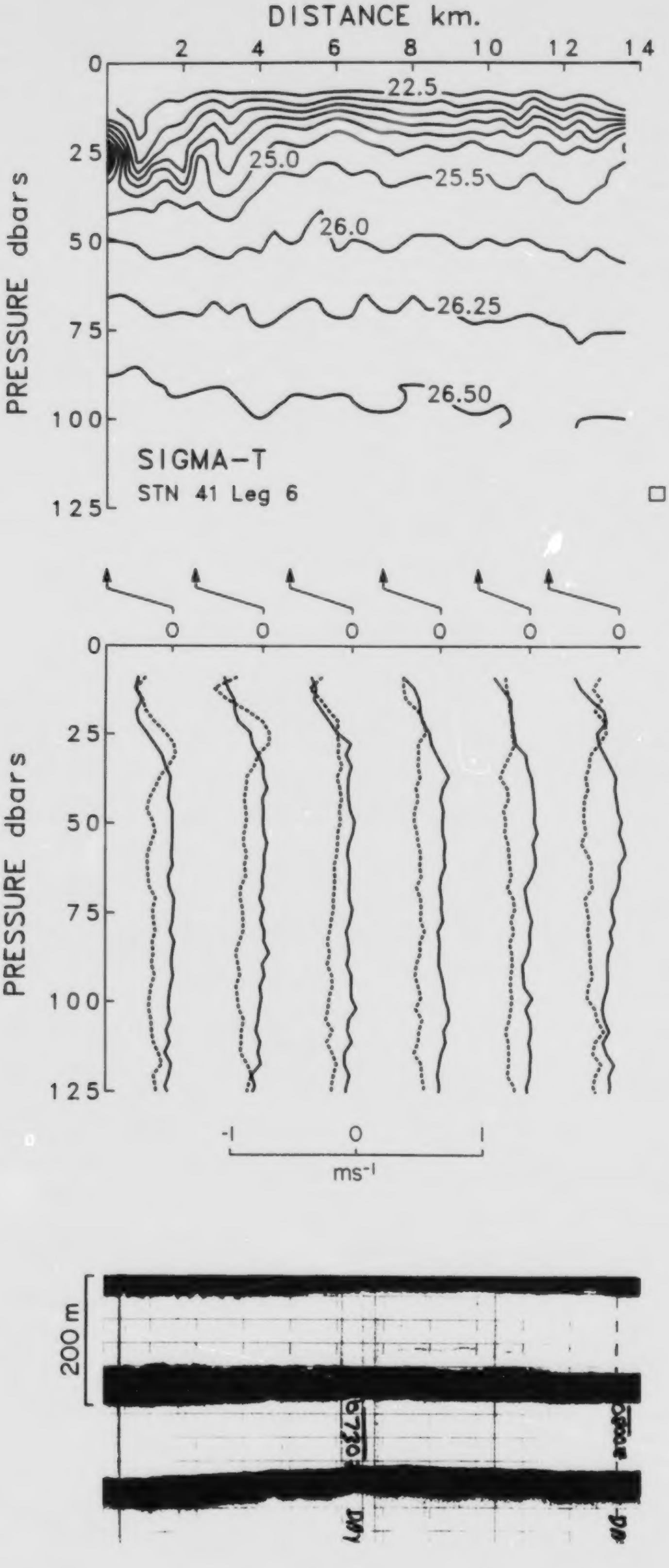

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
22.5
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 6
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1
200 m
0730
DAY
0800
DAY

Fig. 271

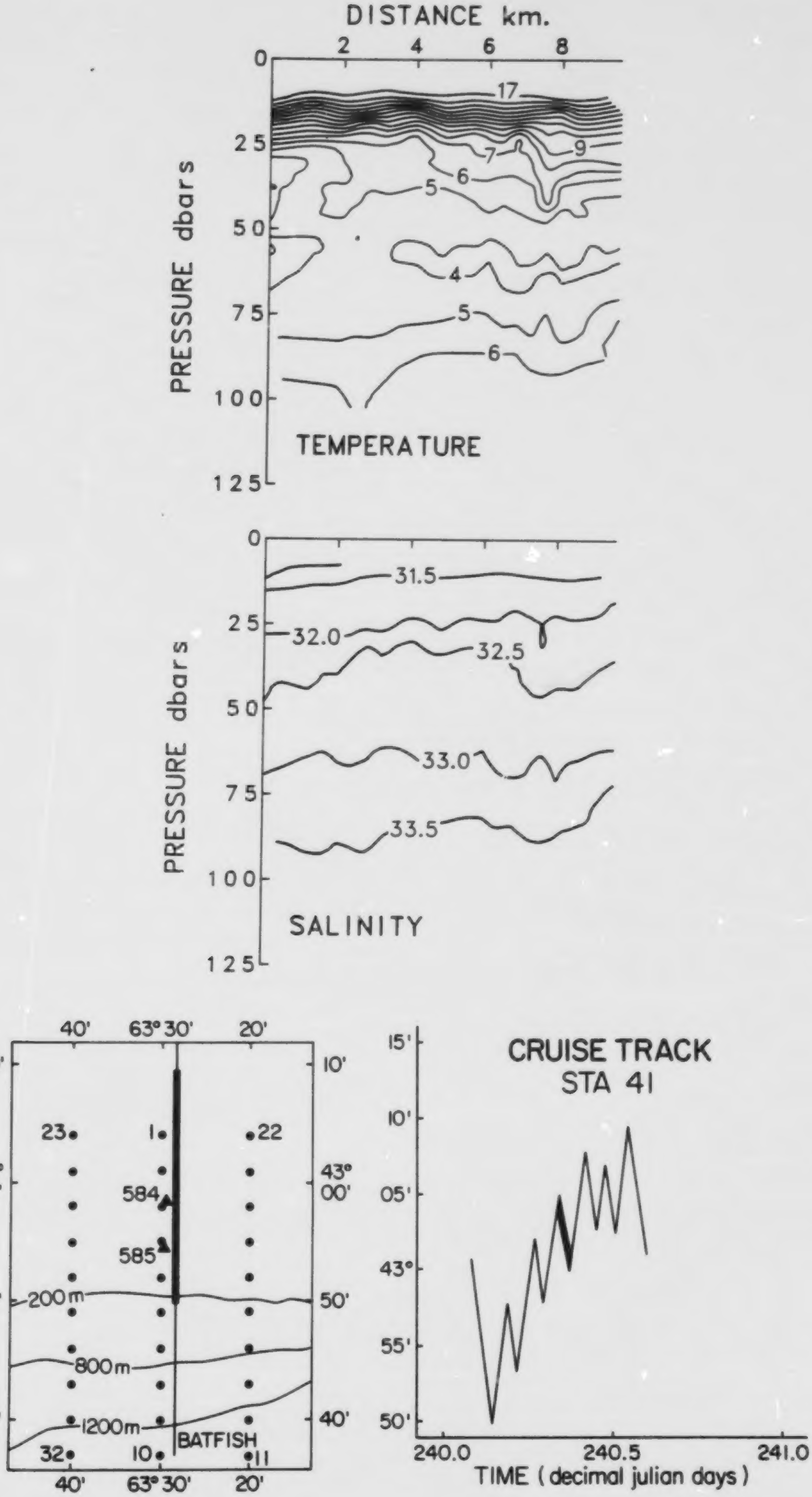

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
17
9
7
6
5
4
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 272

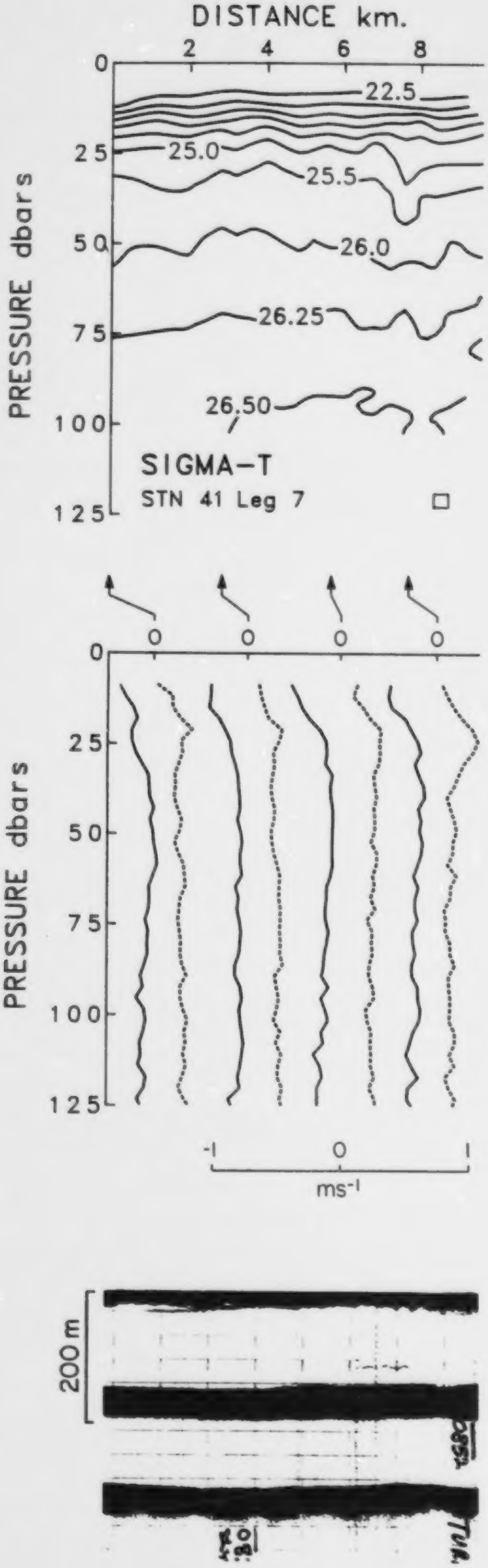

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
22.5
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 7
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹
200 m

Fig. 273

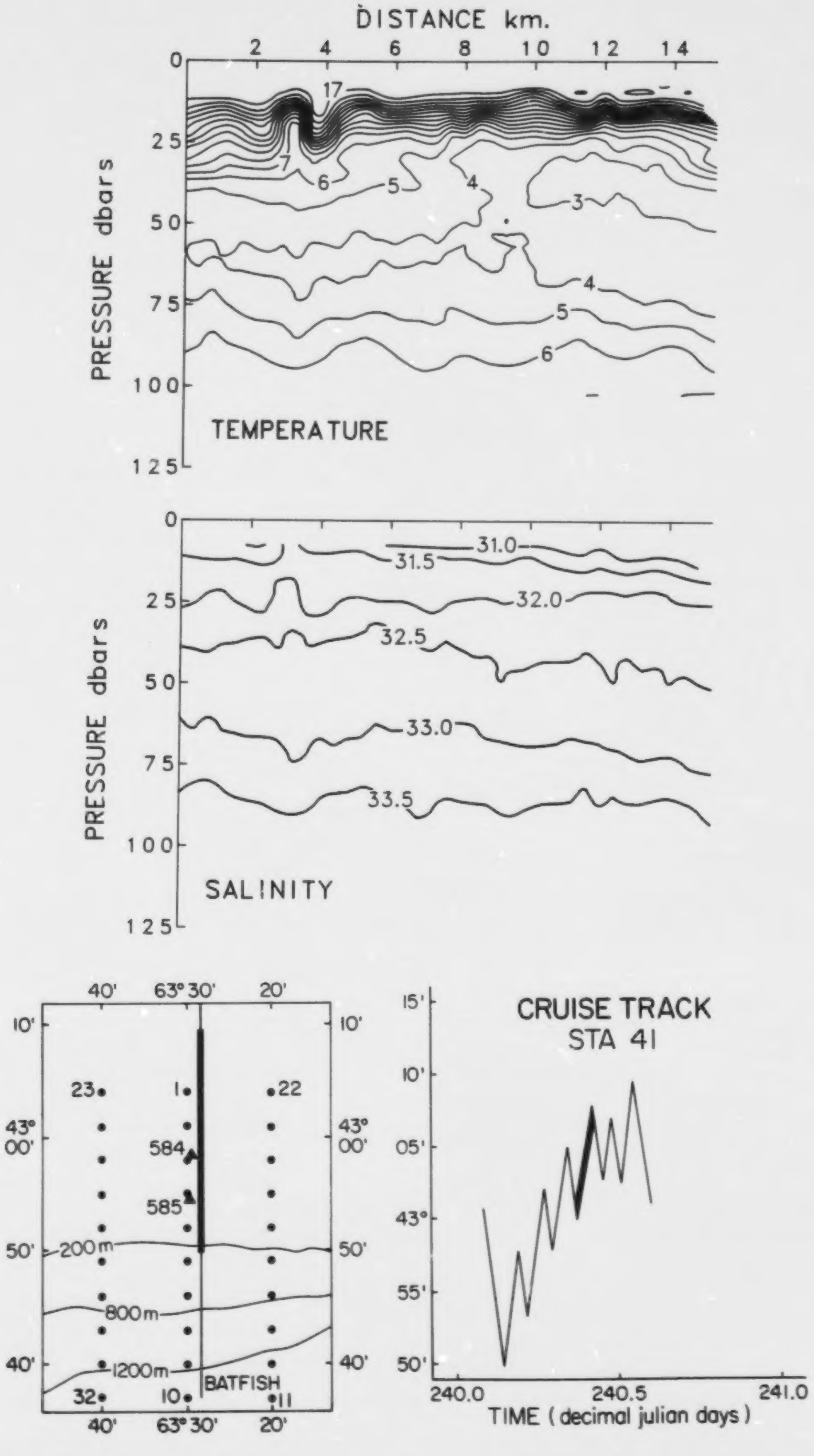

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
17
7
6
5
4
3
4
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.0
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
23
1
22
43° 00'
584
585
50'
200m
800m
1200m
40'
32
10
11
BATFISH
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 274

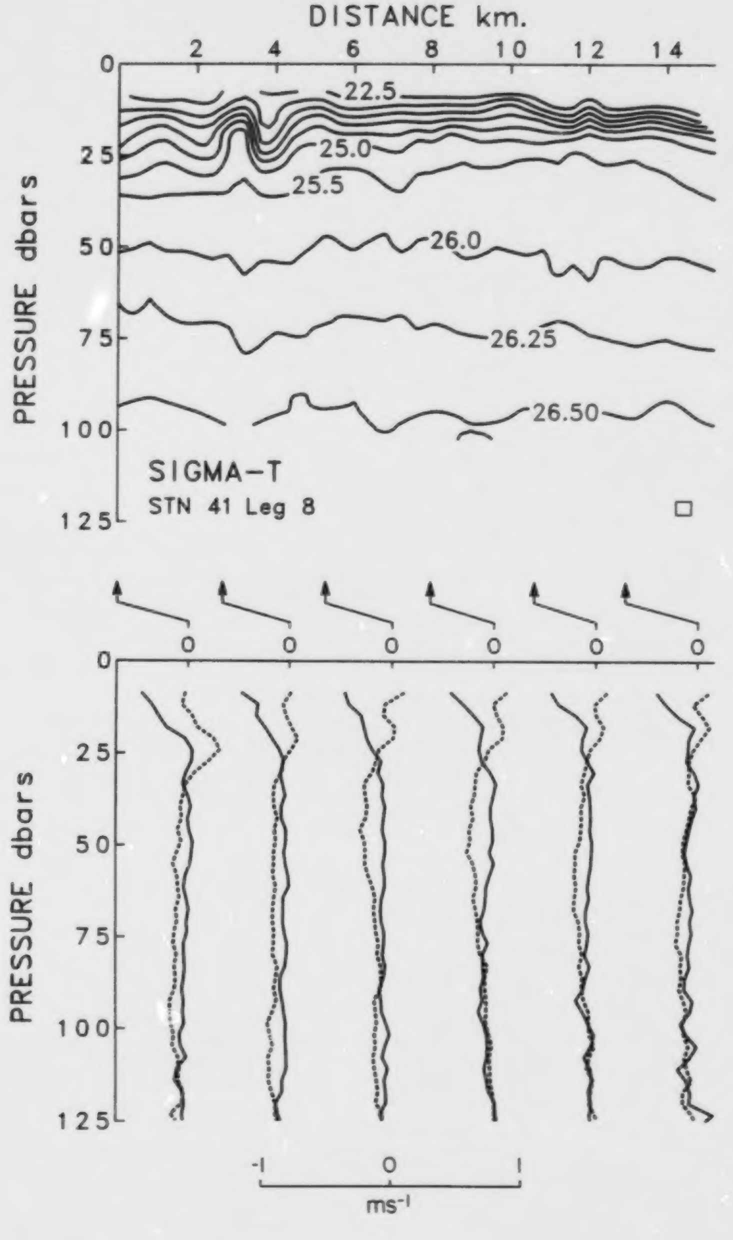

DISTANCE km.
2
4
6
8
10
12
14
0
25
50
75
100
125
PRESSURE dbars
22.5
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 8
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 275

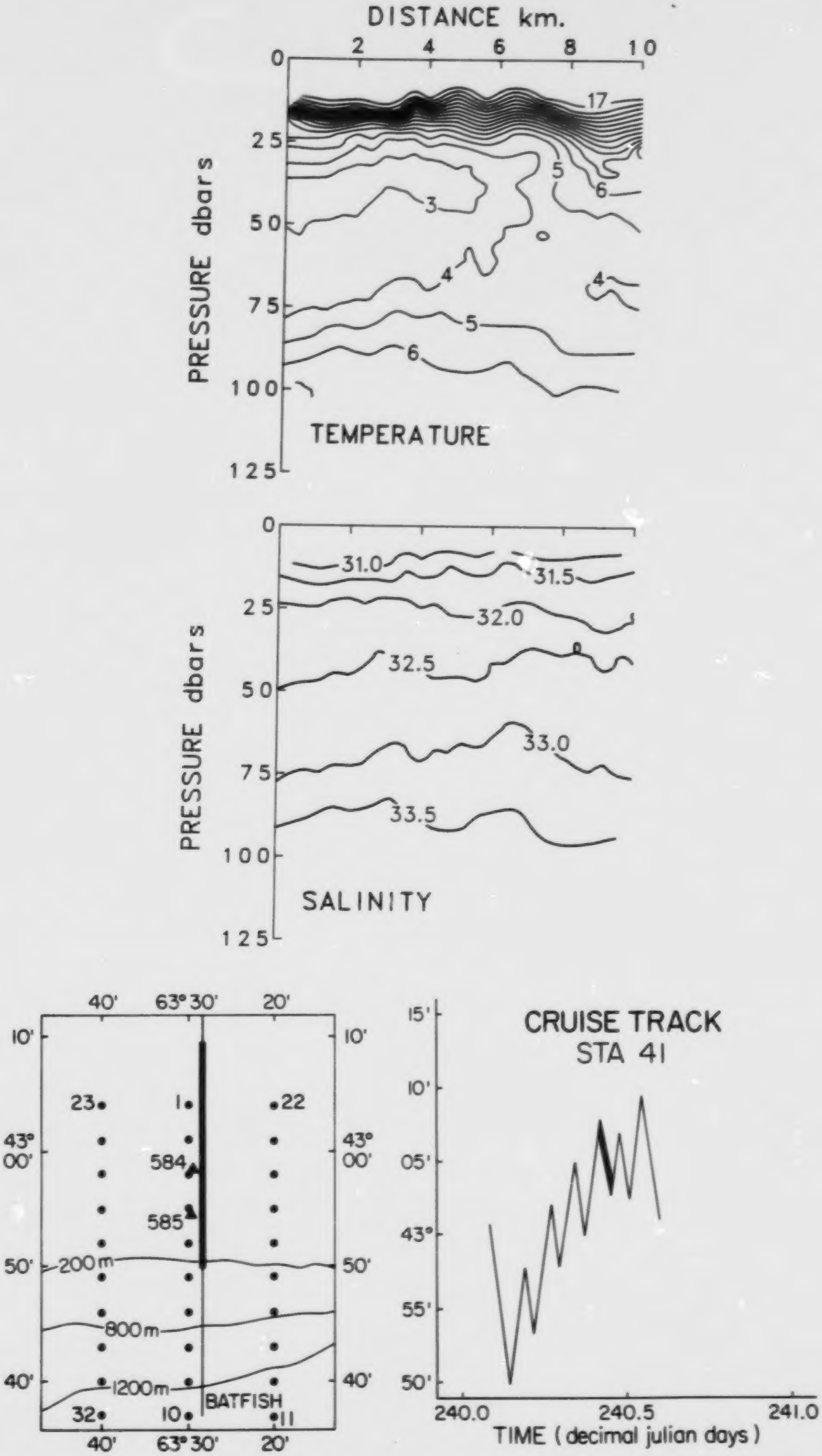

DISTANCE km.
0
2
4
6
8
10
17
5
6
3
4
4
5
6
25
50
75
100
125
PRESSURE dbars
TEMPERATURE
0
31.0
31.5
32.0
32.5
33.0
33.5
25
50
75
100
125
PRESSURE dbars
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 276

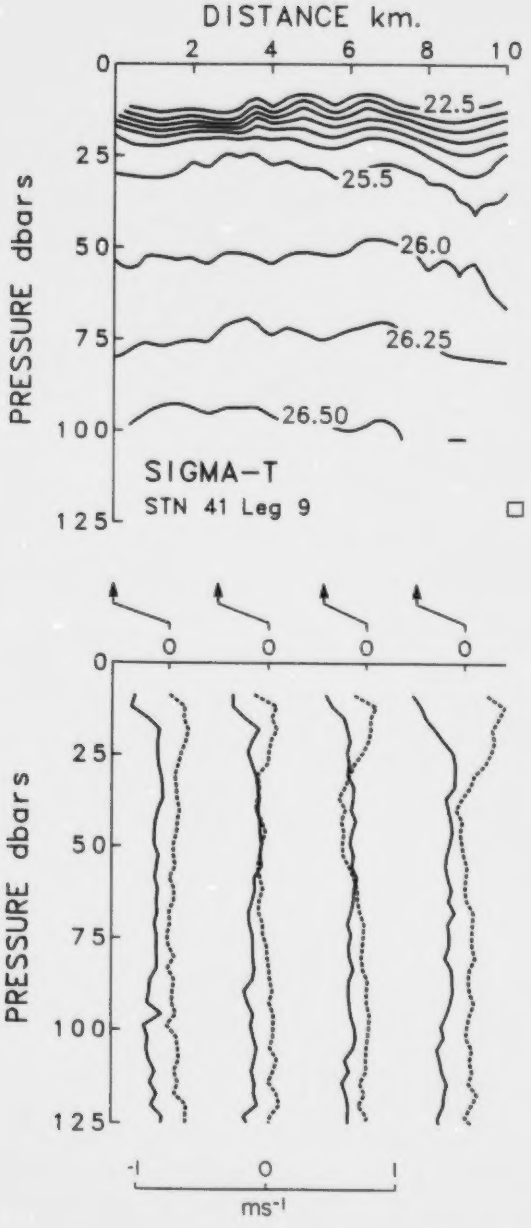

DISTANCE km.
2
4
6
8
10
0
25
50
75
100
125
PRESSURE dbars
22.5
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 9
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms⁻¹

Fig. 277

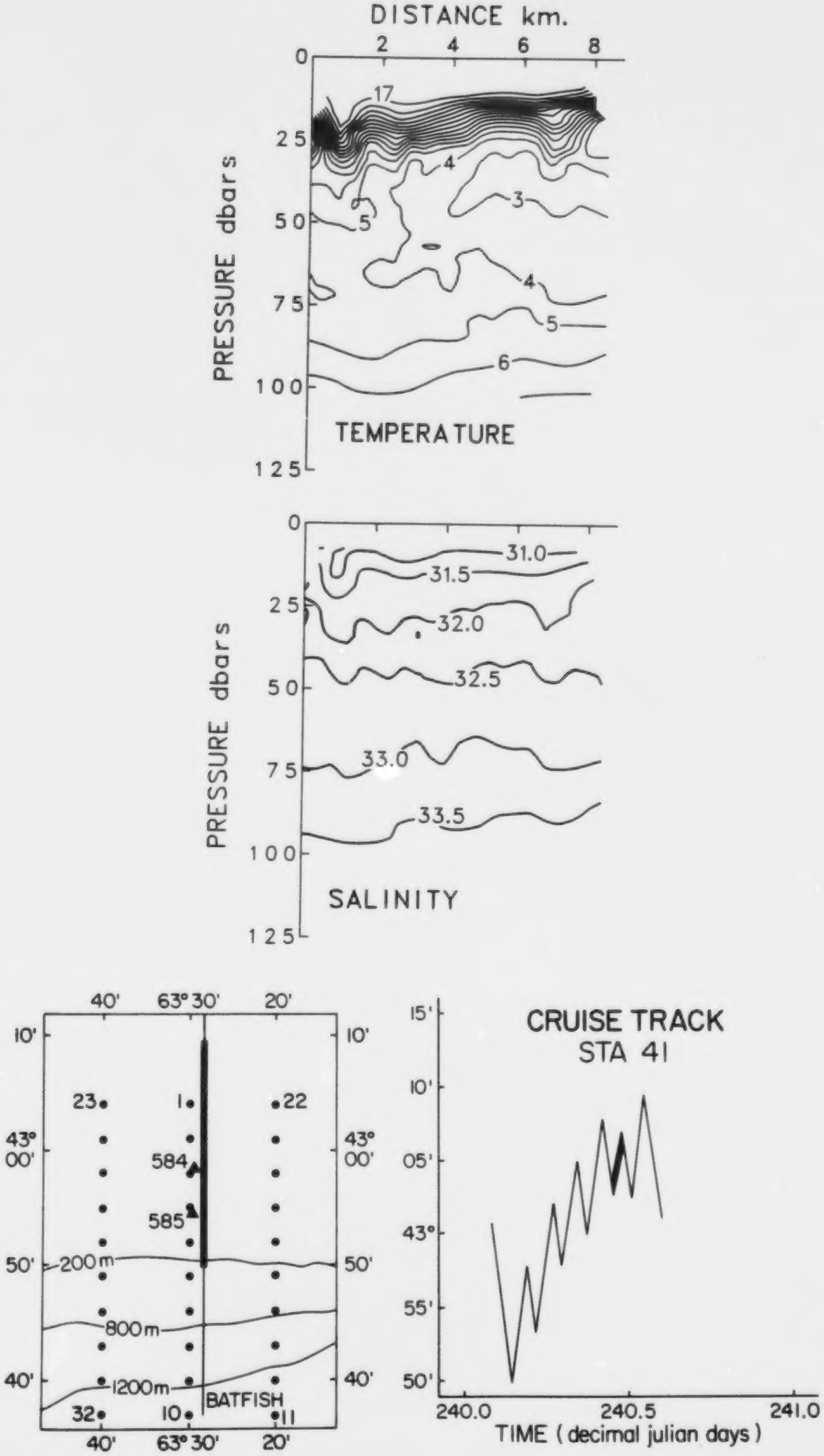

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
17
4
3
5
4
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.0
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 278

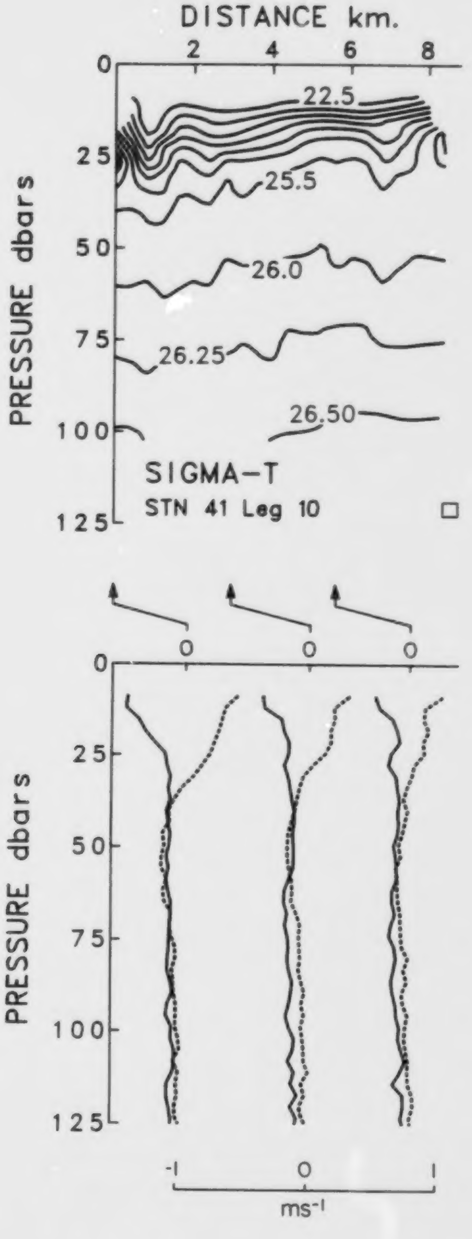

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
22.5
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 10
□
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 279

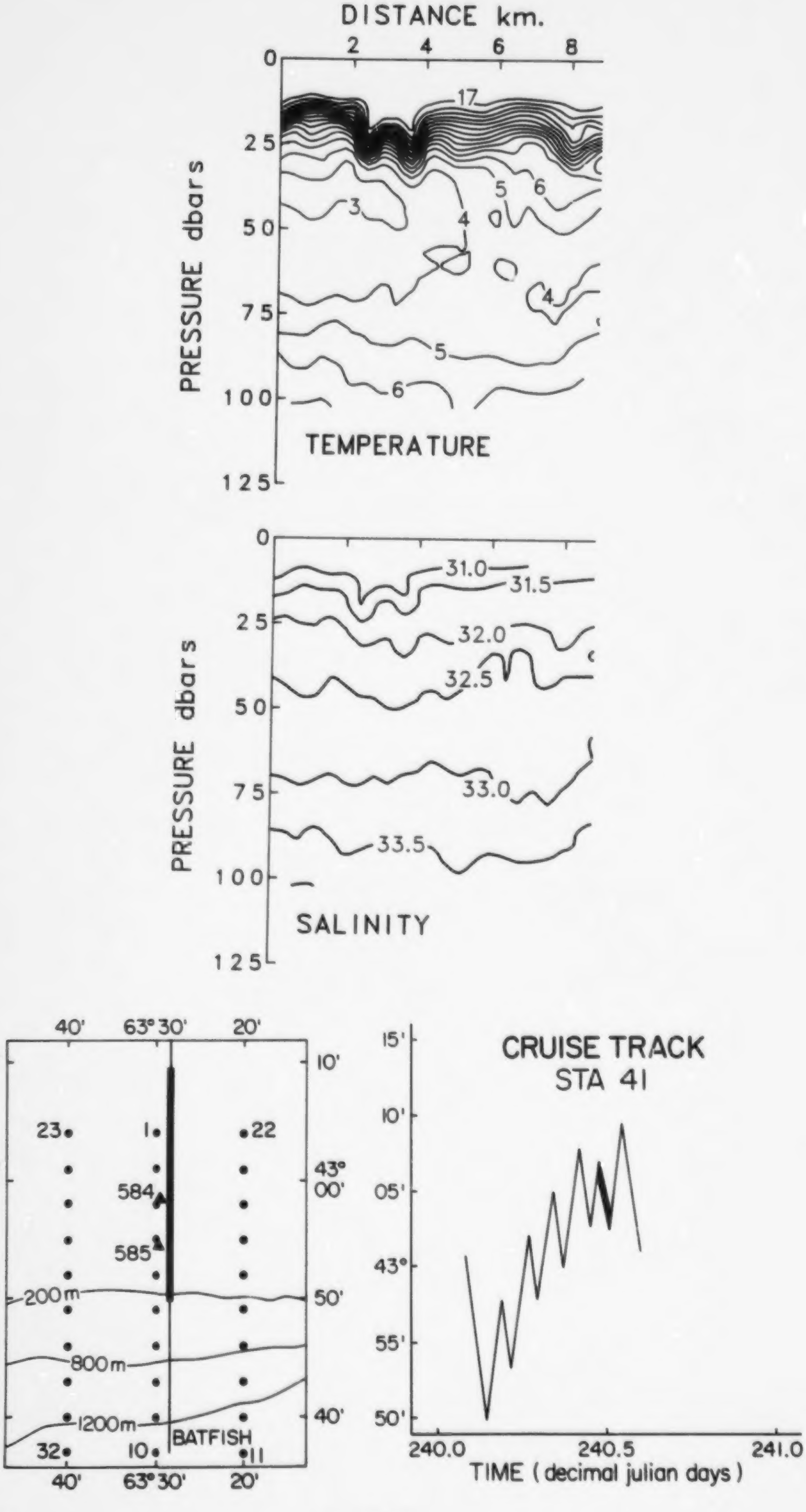

DISTANCE km.
2
4
6
8
PRESSURE dbars
0
25
50
75
100
125
17
3
4
5
6
4
5
6
TEMPERATURE
31.0
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63°30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 280

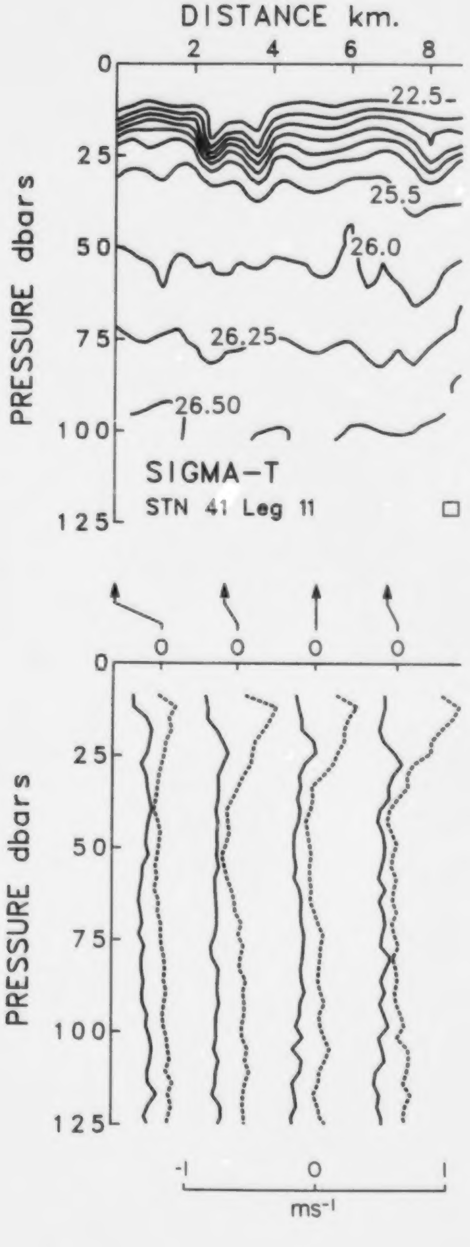

DISTANCE km.
2
4
6
8
0
25
50
75
100
125
PRESSURE dbars
22.5
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 11
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 281

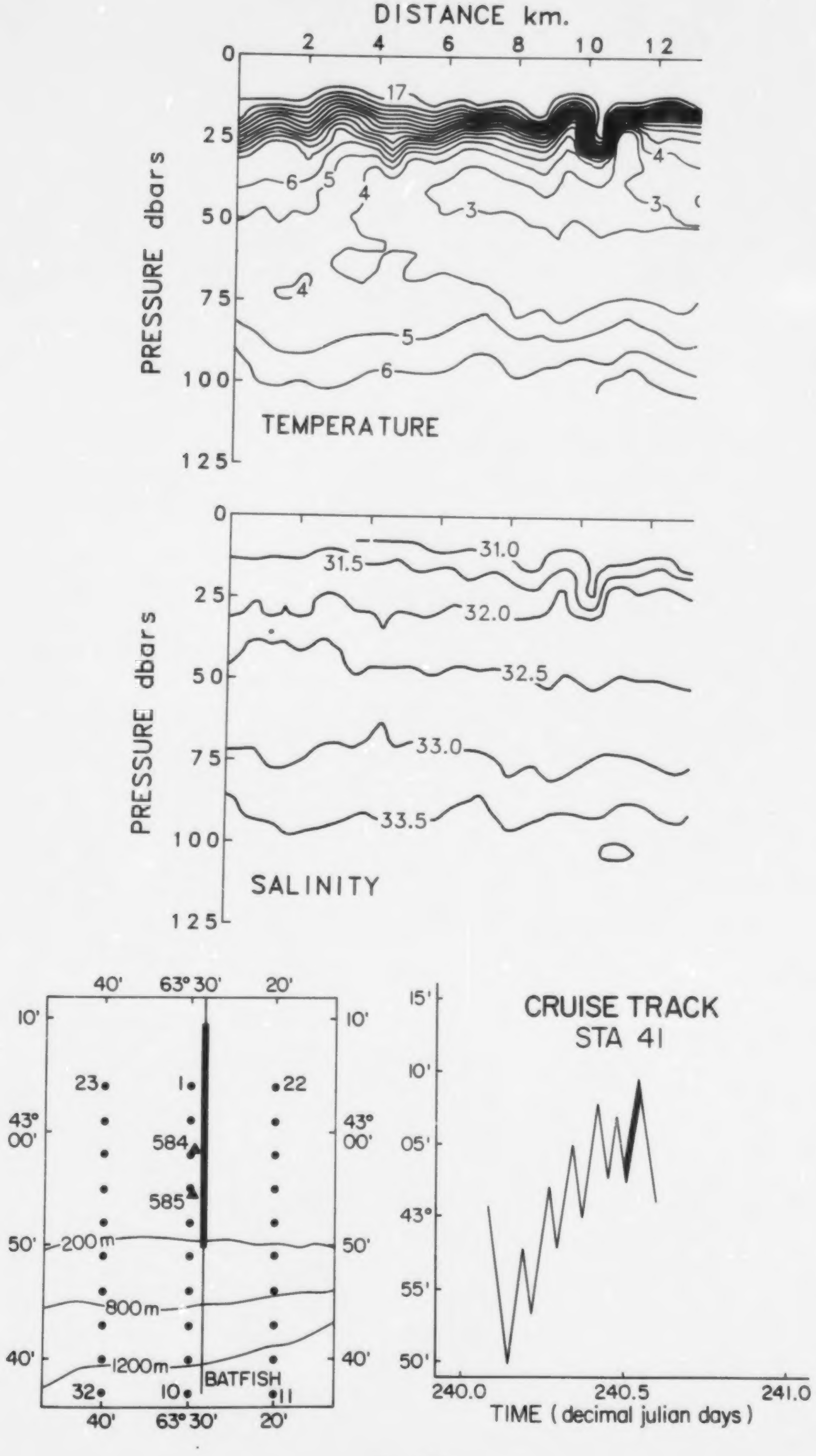

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
17
6
5
4
3
4
3
4
5
6
TEMPERATURE
0
25
50
75
100
125
PRESSURE dbars
31.0
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 282

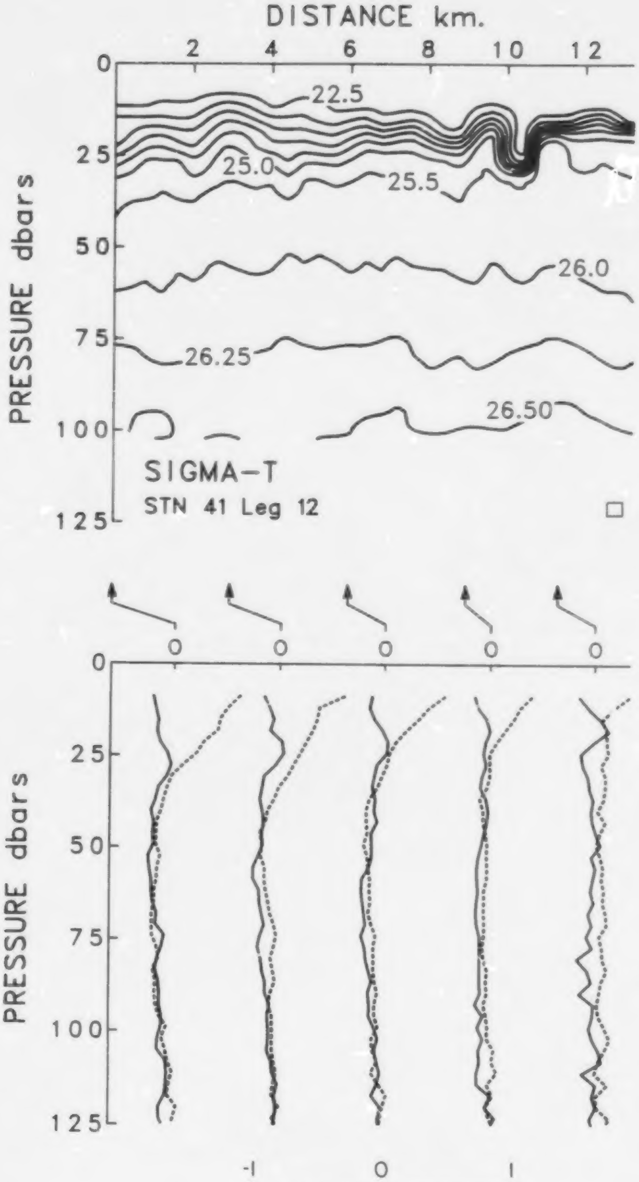

DISTANCE km.
2
4
6
8
10
12
0
25
50
75
100
125
PRESSURE dbars
22.5
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 12
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 283

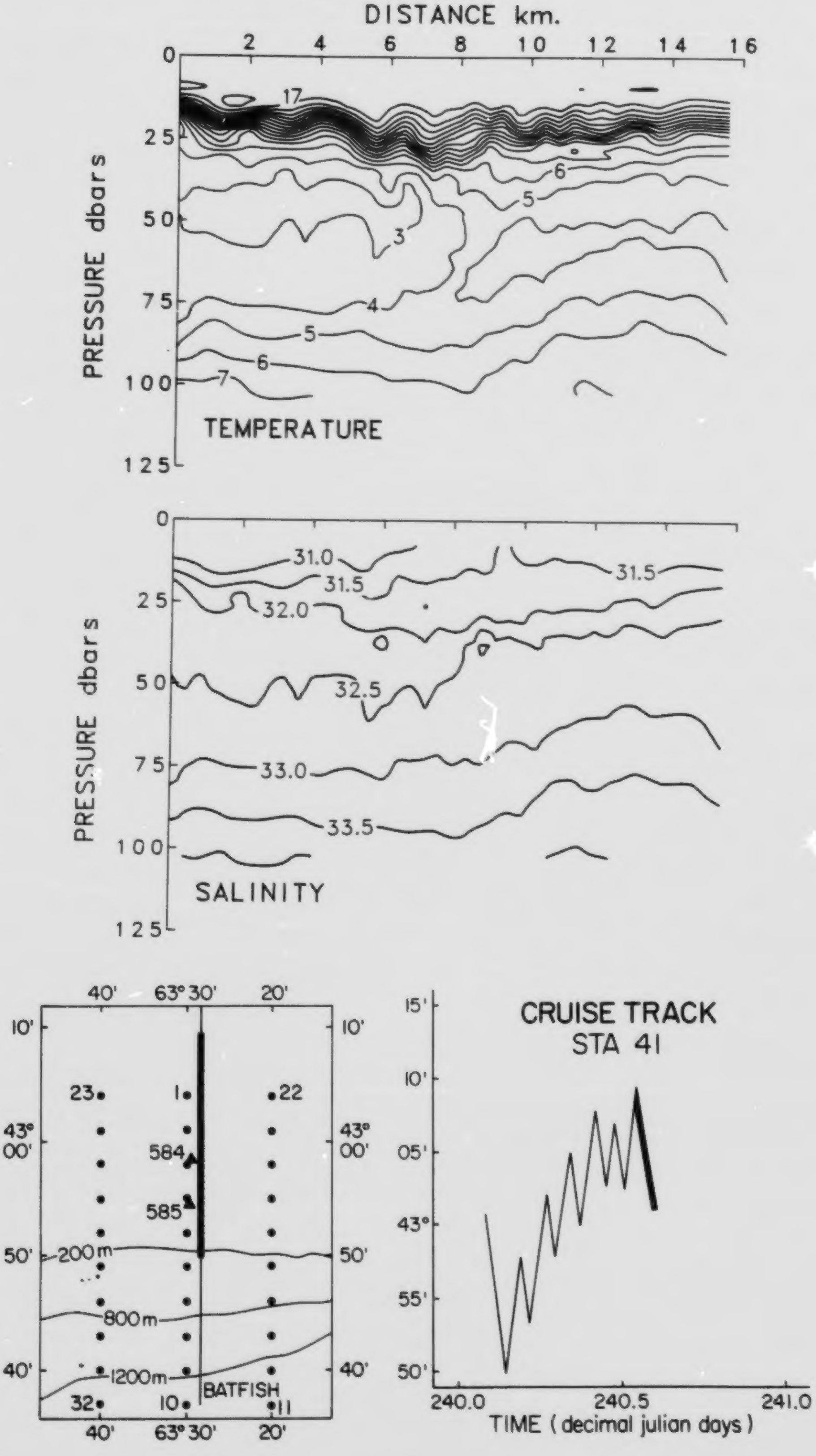

DISTANCE km.
0
2
4
6
8
10
12
14
16
PRESSURE dbars
25
50
75
100
125
17
6
5
3
4
5
6
7
TEMPERATURE
PRESSURE dbars
0
25
50
75
100
125
31.0
31.5
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 41
15'
10'
05'
43°
55'
50'
240.0
240.5
241.0
TIME (decimal julian days)

Fig. 284

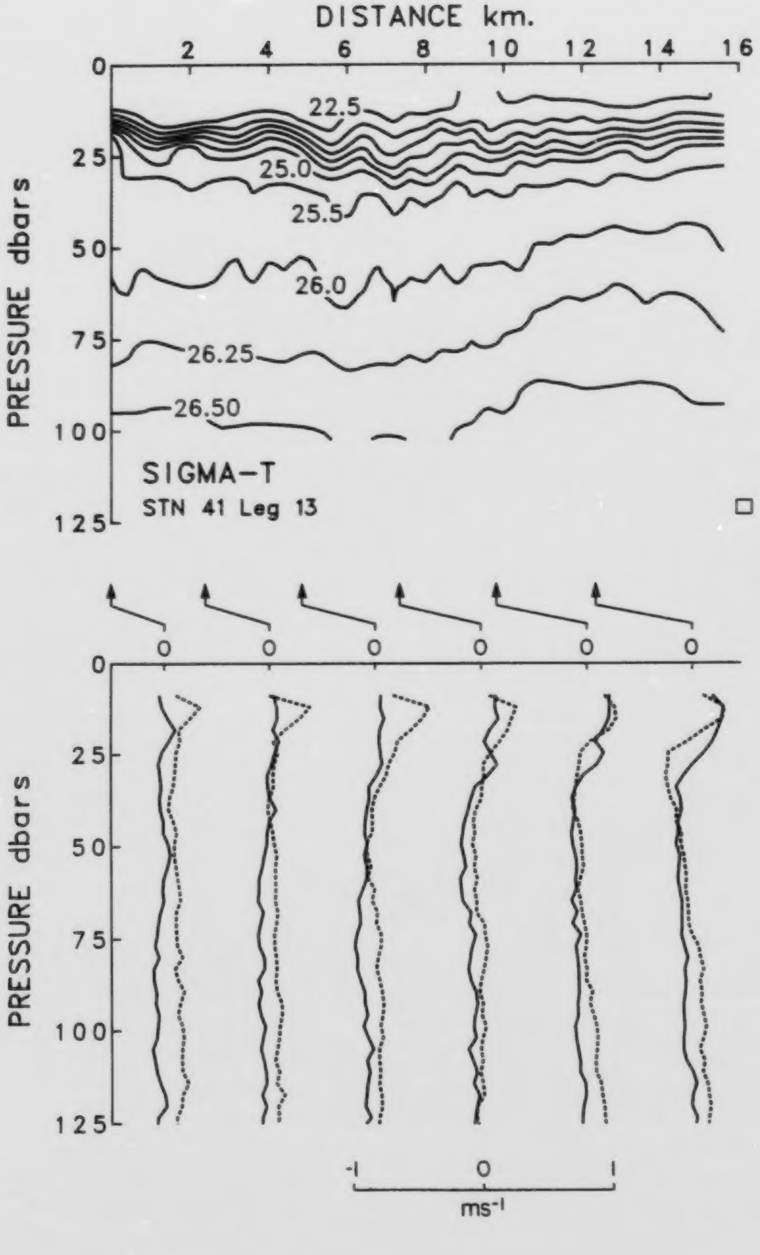

DISTANCE km.
2
4
6
8
10
12
14
16
0
25
50
75
100
125
PRESSURE dbars
22.5
25.0
25.5
26.0
26.25
26.50
SIGMA-T
STN 41 Leg 13
0
0
0
0
0
0
0
25
50
75
100
125
PRESSURE dbars
-1
0
1
ms-1

Fig. 285

Figures 286-309

BATFISH station 42; 9 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

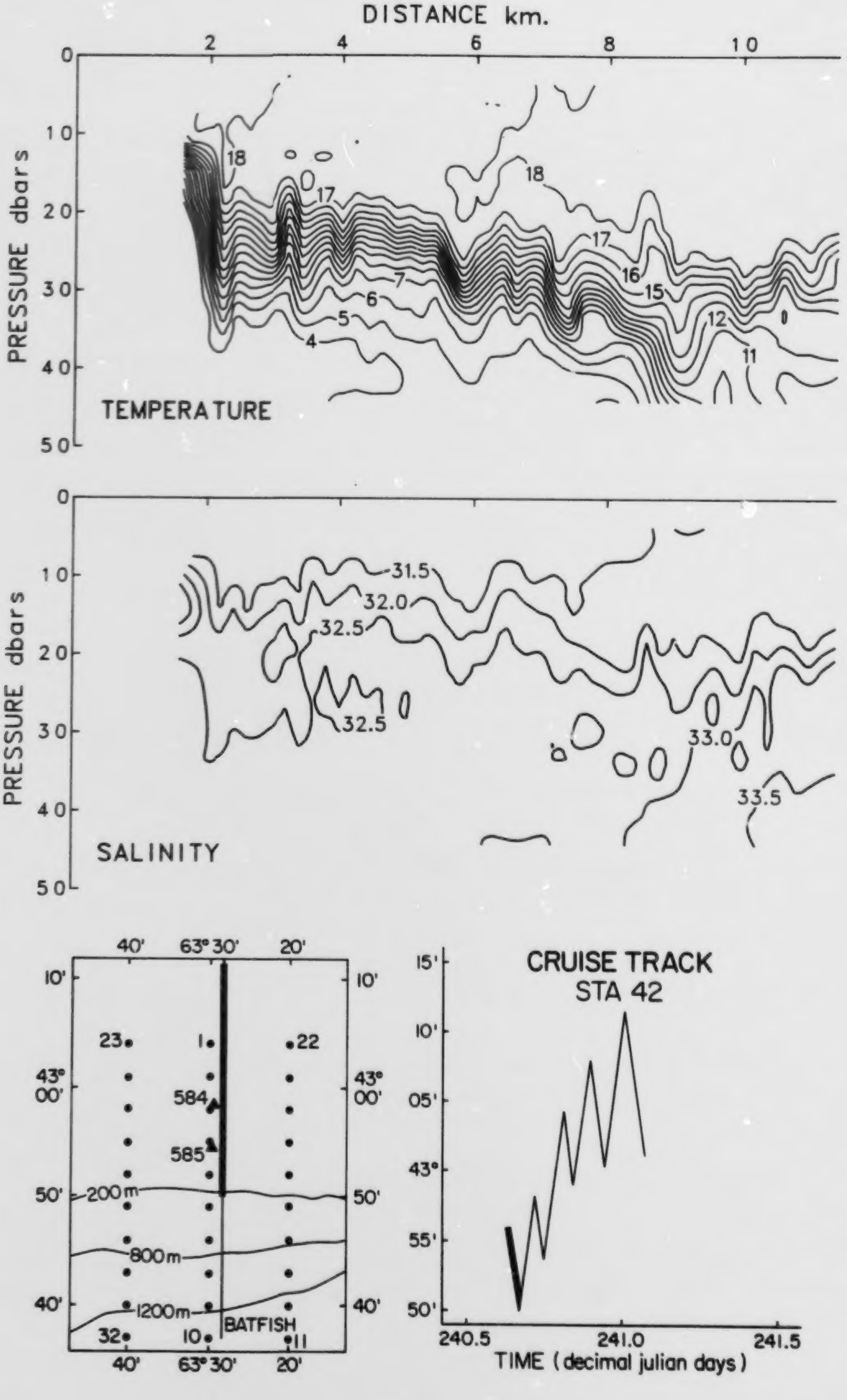

DISTANCE km.
2
4
6
8
10
0
10
20
30
40
50
PRESSURE dbars
18
17
7
6
5
4
18
17
16
15
12
11
TEMPERATURE
31.5
32.0
32.5
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 42
15'
10'
05'
43°
55'
50'
240.5
241.0
241.5
TIME (decimal julian days)

Fig. 286

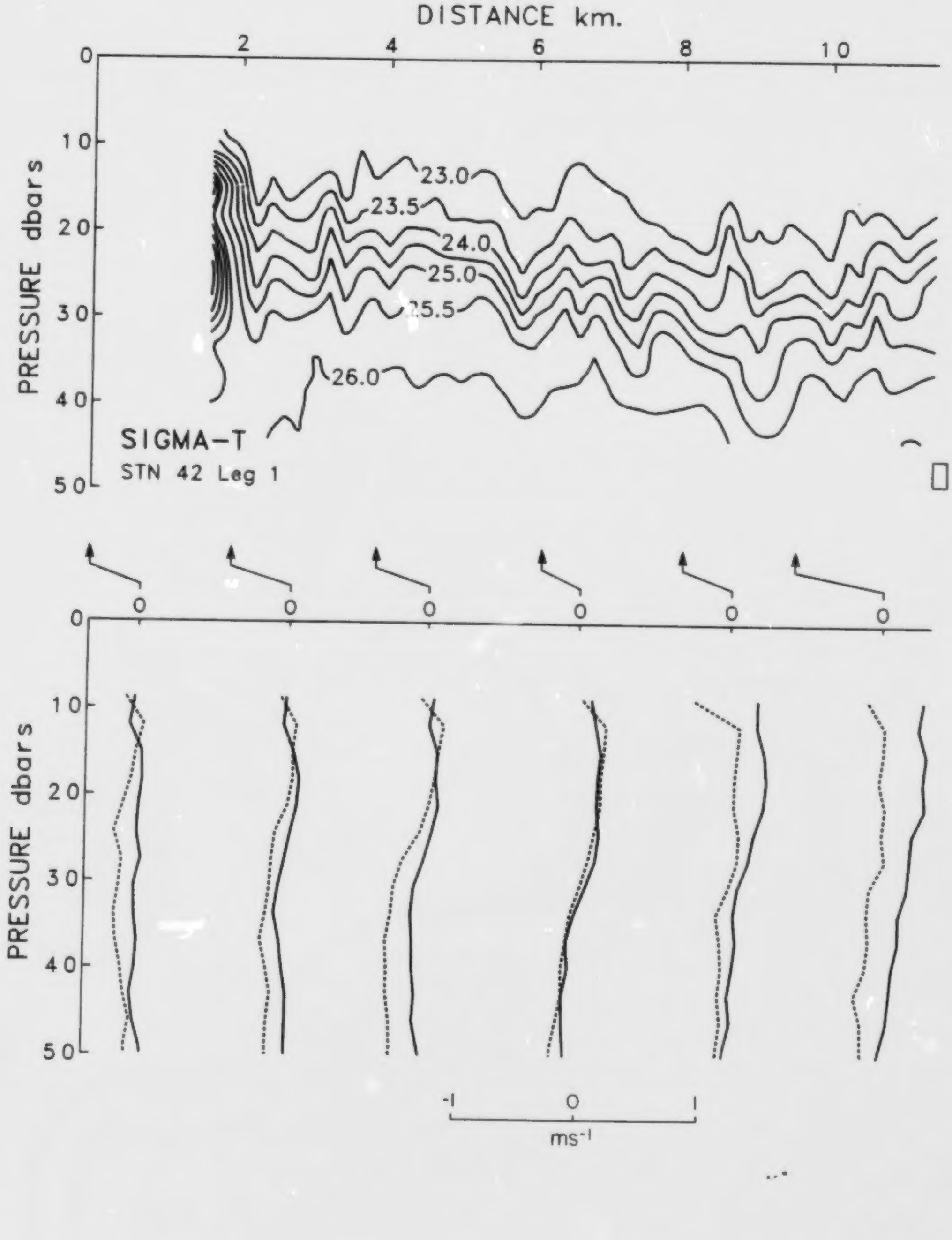

DISTANCE km.
0
2
4
6
8
10
10
20
30
40
50
PRESSURE dbars
23.0
23.5
24.0
25.0
25.5
26.0
SIGMA-T
STN 42 Leg 1
0
0
0
0
0
0
0
PRESSURE dbars
-1
0
1
ms-1

Fig. 287

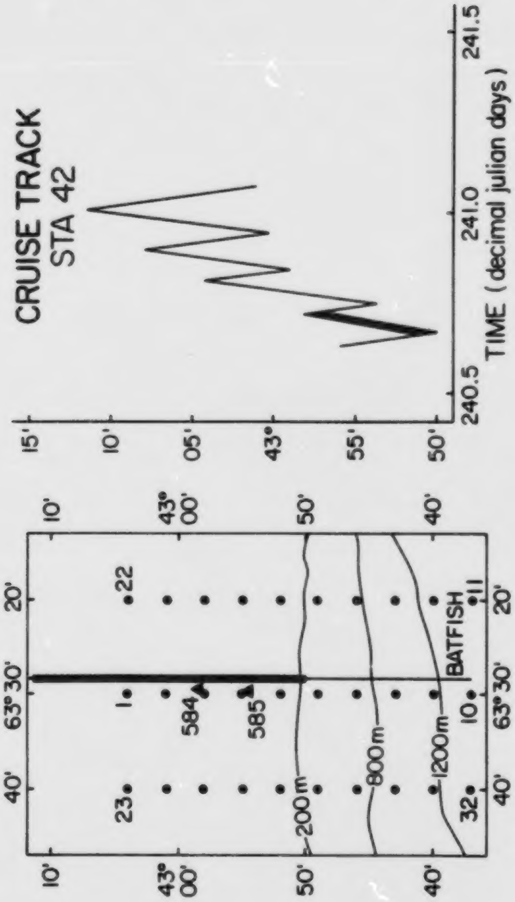

CRUISE TRACK
STA 42
TIME (decimal julian days)
240.5
241.0
241.5
15'
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
20'
63°30'
40'
22
1
23
584
585
200m
800m
1200m
BATFISH
11
10
32

Fig. 288

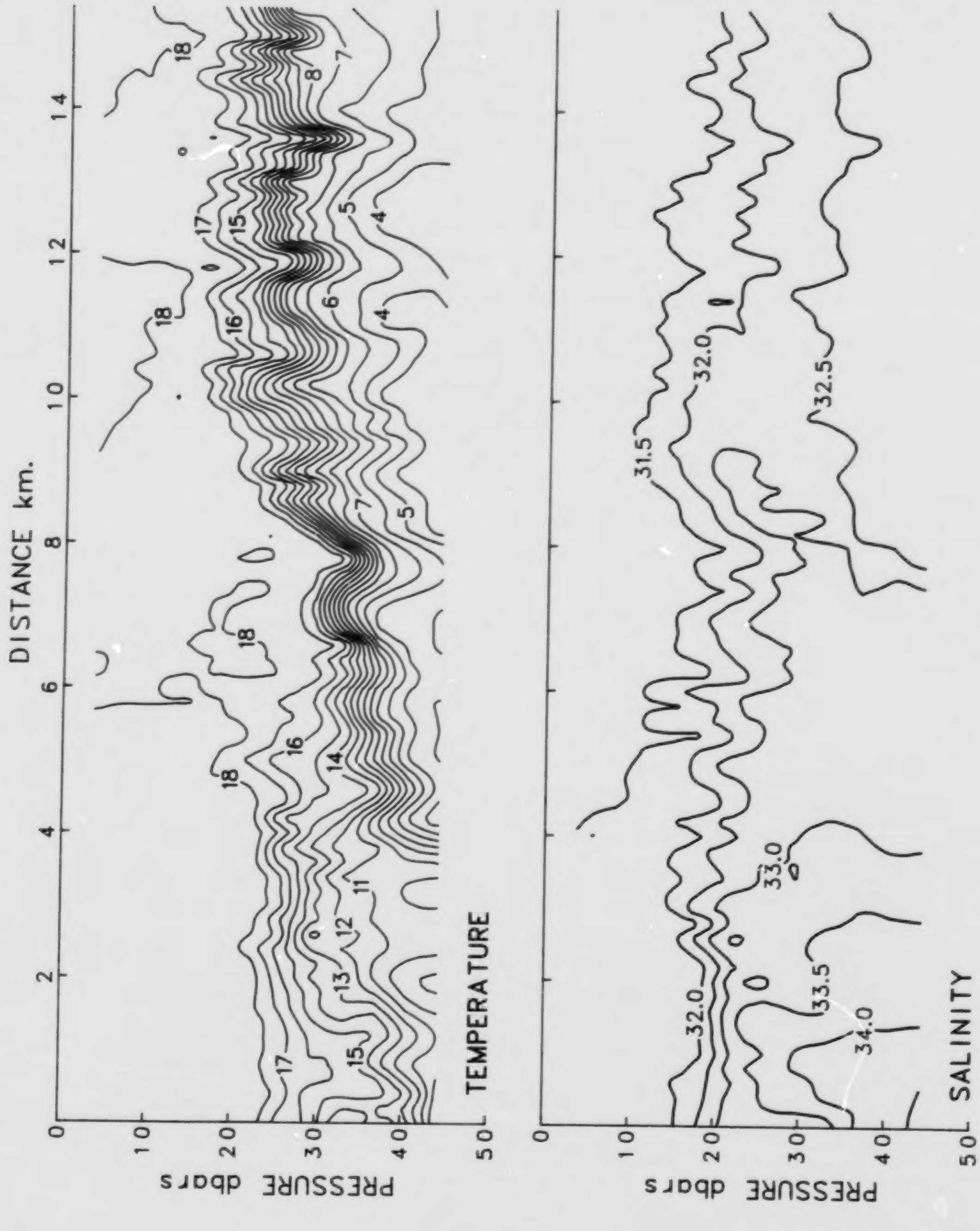

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
17
16
15
14
13
12
11
8
7
6
5
4
SALINITY
31.5
32.0
32.5
33.0
33.5
34.0

Fig. 289

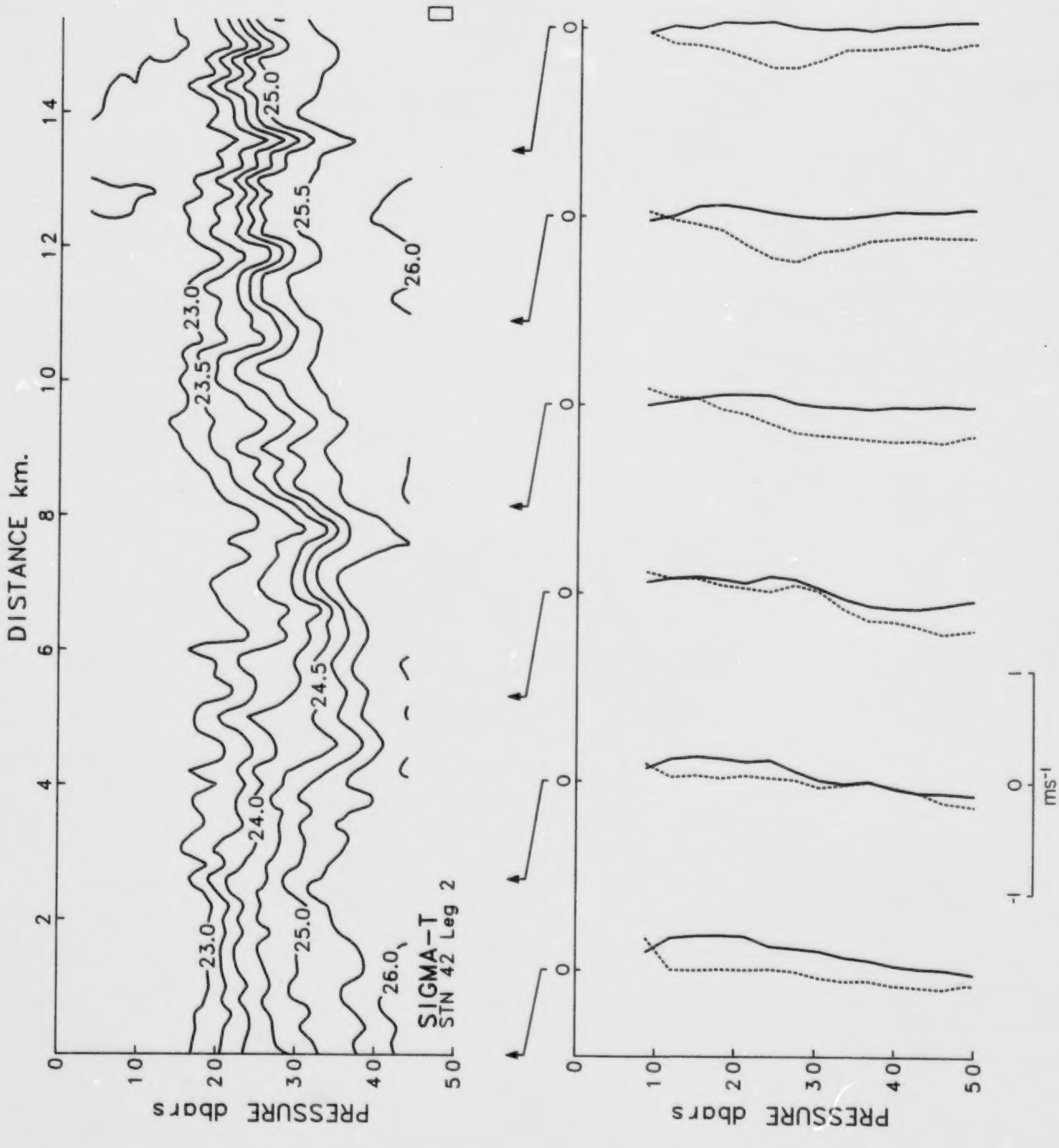

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
23.0
23.5
24.0
24.5
25.0
25.5
26.0
SIGMA-T
STN 42 Leg 2
0
PRESSURE dbars
0
10
20
30
40
50
-1
0
1
ms-1

Fig. 290

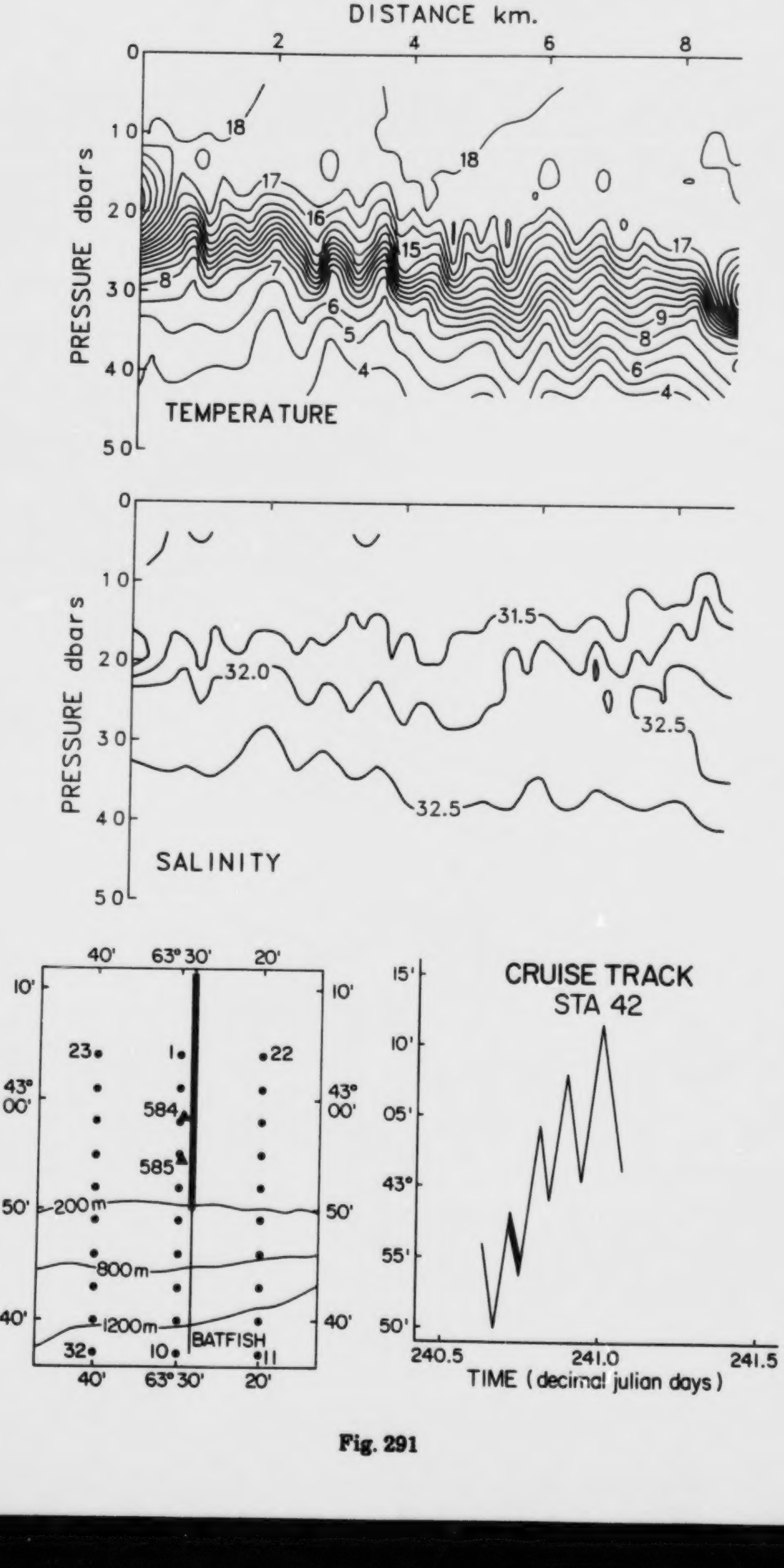

DISTANCE km.
0
2
4
6
8
PRESSURE dbars
10
20
30
40
50
18
17
16
15
8
7
6
5
4
17
9
8
6
4
TEMPERATURE
PRESSURE dbars
0
10
20
30
40
50
31.5
32.0
32.5
32.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 42
15'
10'
05'
43°
55'
50'
240.5
241.0
241.5
TIME (decimal julian days)

Fig. 291

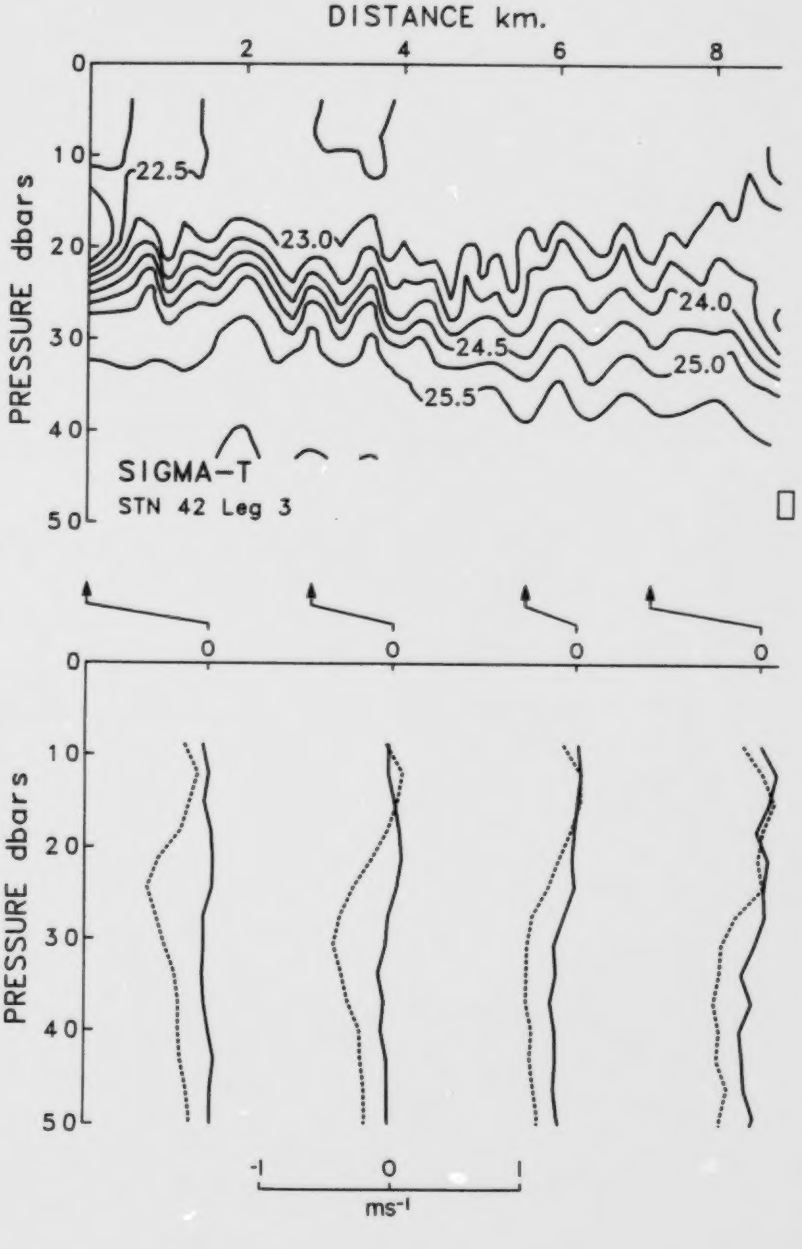

DISTANCE km.
0
2
4
6
8
0
10
20
30
40
50
PRESSURE dbars
22.5
23.0
24.0
24.5
25.0
25.5
SIGMA-T
STN 42 Leg 3
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1

Fig. 292

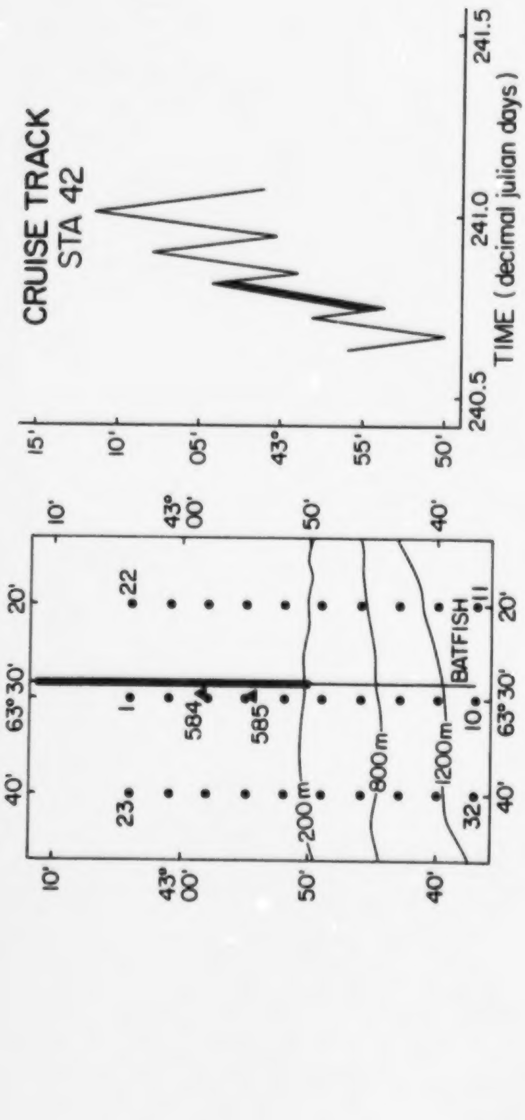

CRUISE TRACK
STA 42
TIME (decimal julian days)
240.5
241.0
241.5
15'
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
40'
63°30'
20'
10'
22
23
1
584
585
200m
800m
1200m
BATFISH
10
11
32

Fig. 293

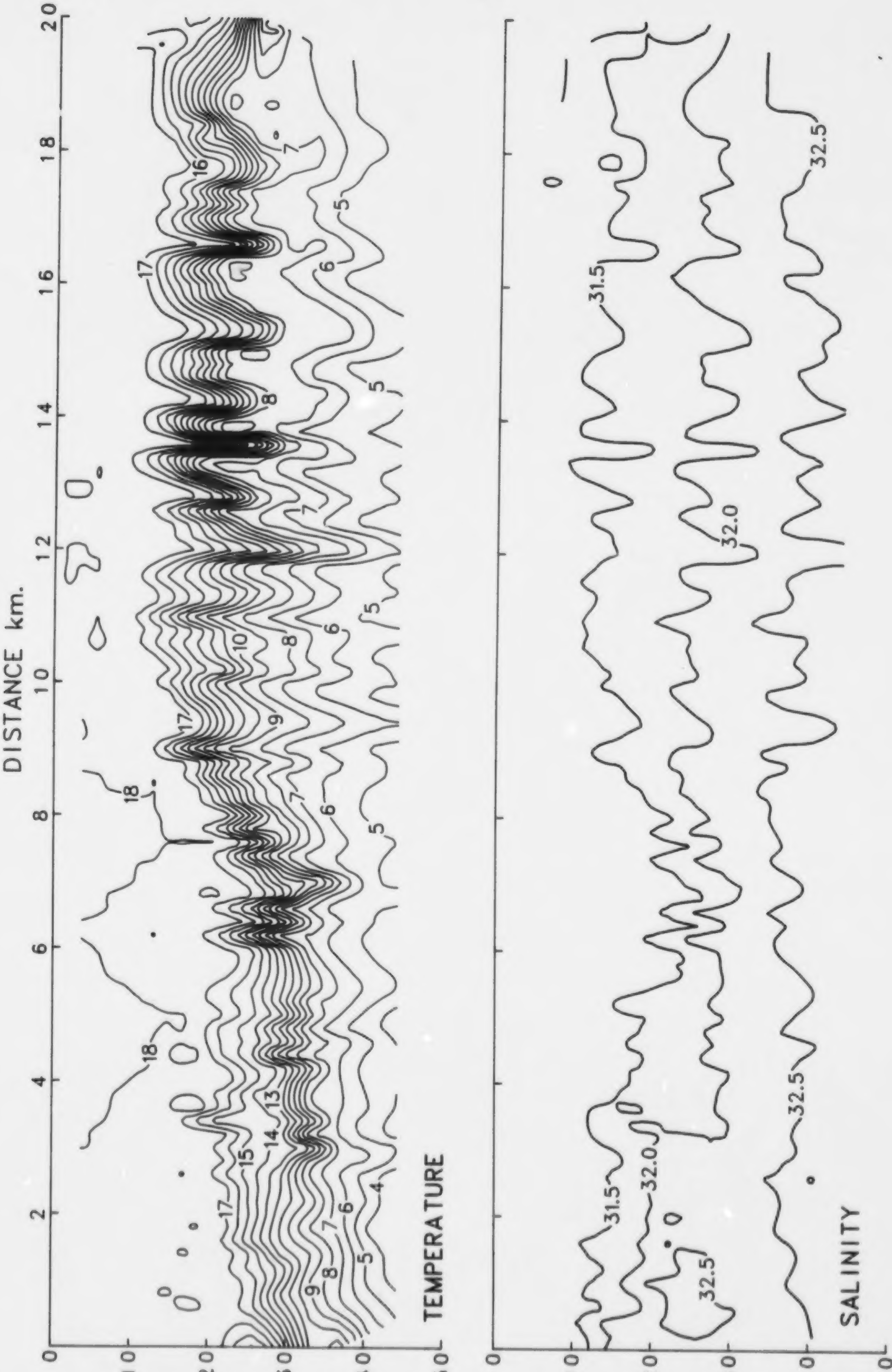

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
20
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
17
16
15
14
13
10
9
8
7
6
5
4
SALINITY
31.5
32.0
32.5

Fig. 294

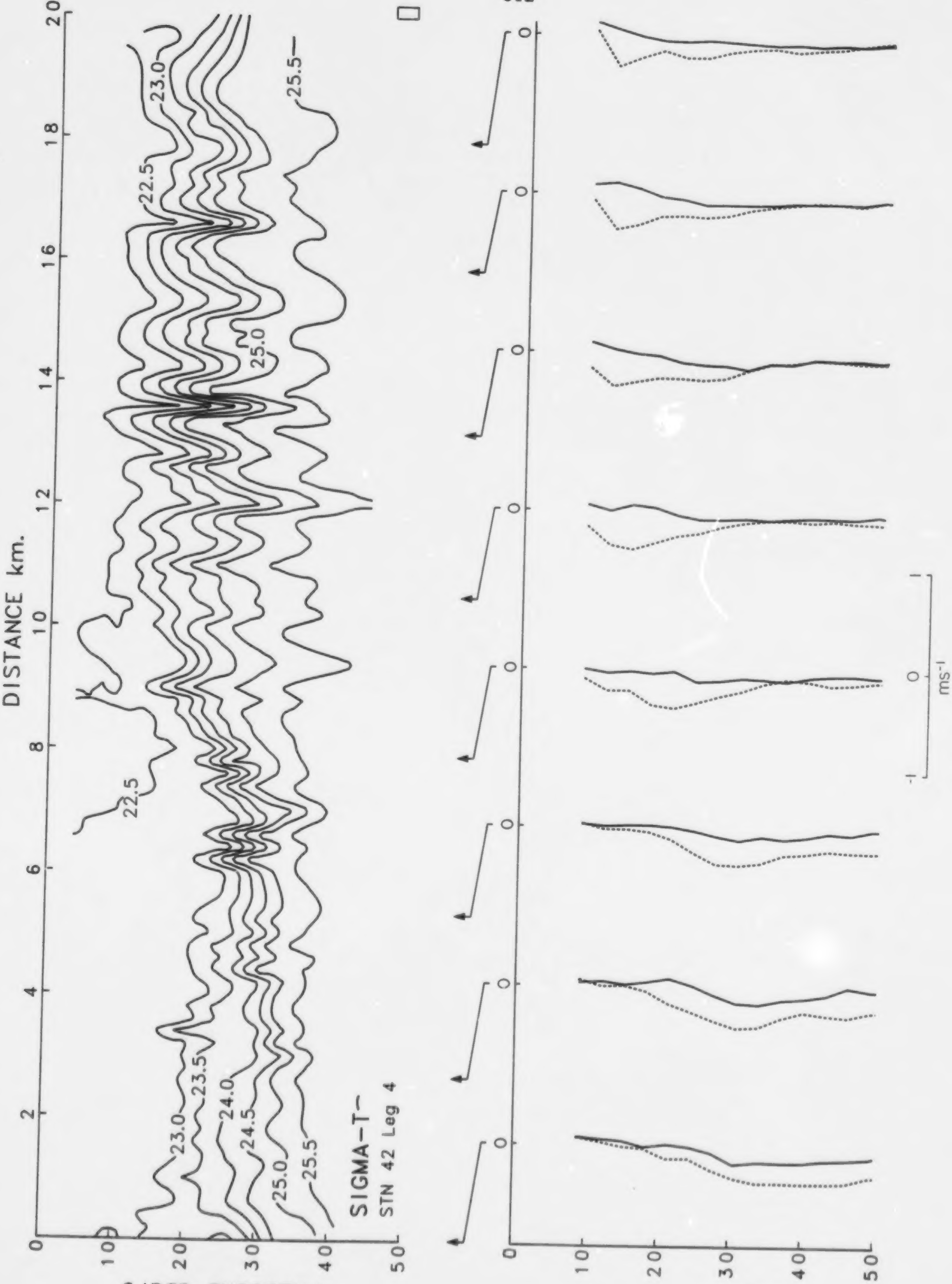

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
20
PRESSURE dbars
0
10
20
30
40
50
22.5
23.0
23.5
24.0
24.5
25.0
25.5
SIGMA-T-
STN 42 Leg 4
ms^{-1}
1
0
-1

Fig. 295

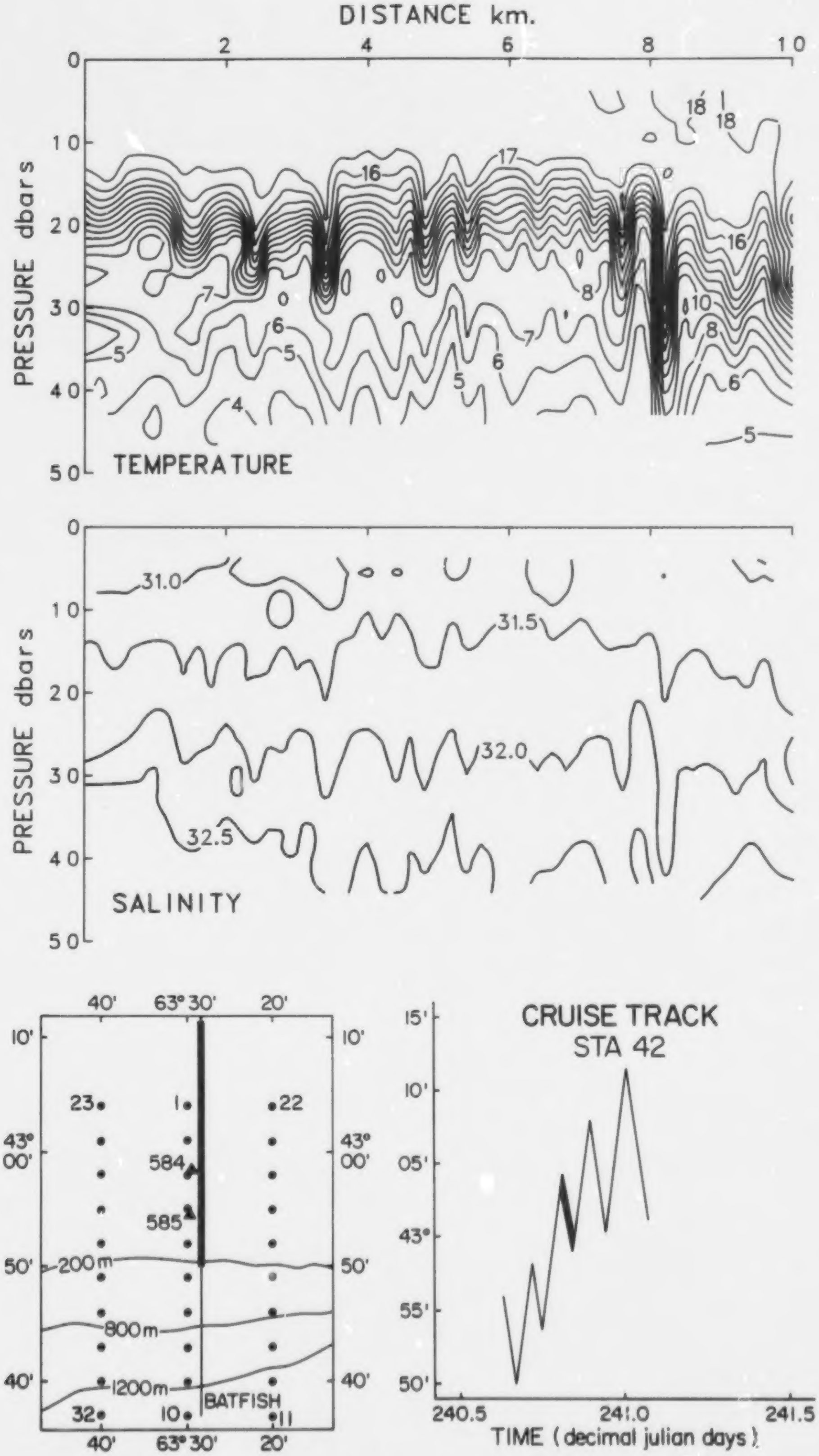

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
16
17
18
7
8
10
6
5
4
TEMPERATURE
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 42
15'
05'
55'
240.5
241.0
241.5
TIME (decimal julian days)

Fig. 296

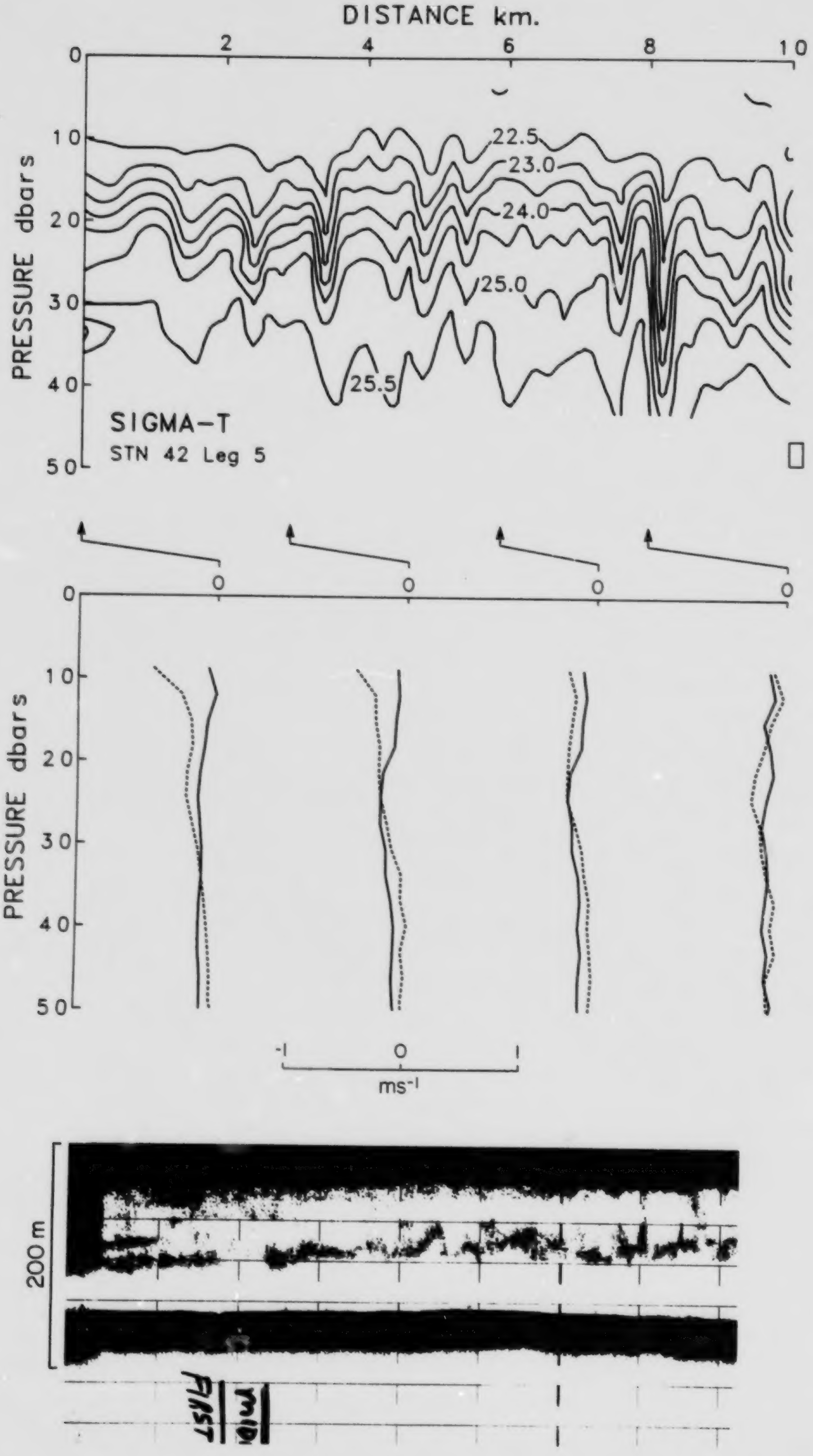

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
22.5
23.0
24.0
25.0
25.5
SIGMA-T
STN 42 Leg 5
0
0
0
0
0
PRESSURE dbars
0
10
20
30
40
50
-1
0
1
ms-1
200 m
FIRST
MID

Fig. 297

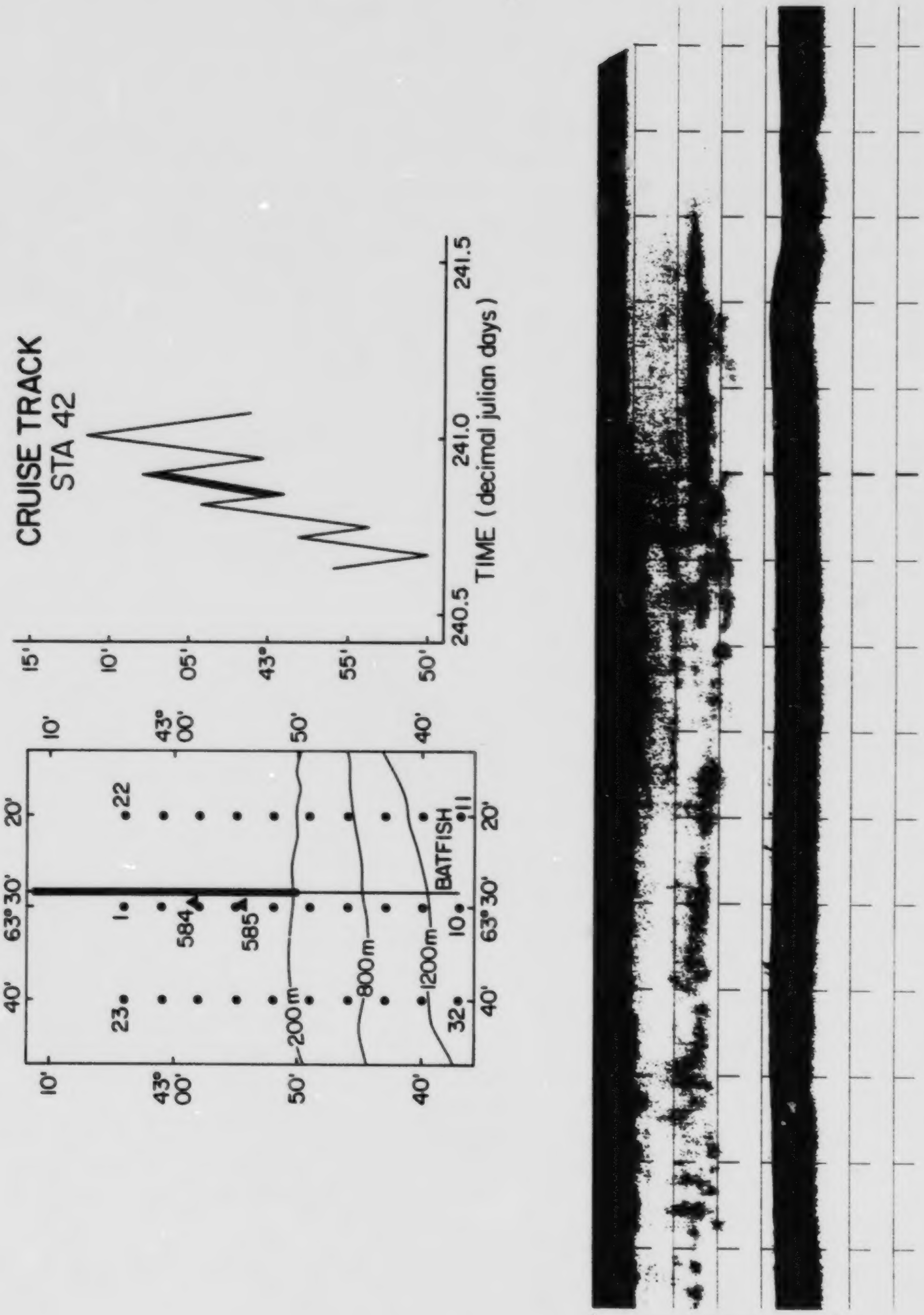

CRUISE TRACK
STA 42
TIME (decimal julian days)
240.5
241.0
241.5
15'
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
20'
63°30'
40'
22
1
584
585
23
10
11
32
200m
800m
1200m
BATFISH
200 m

Fig. 298

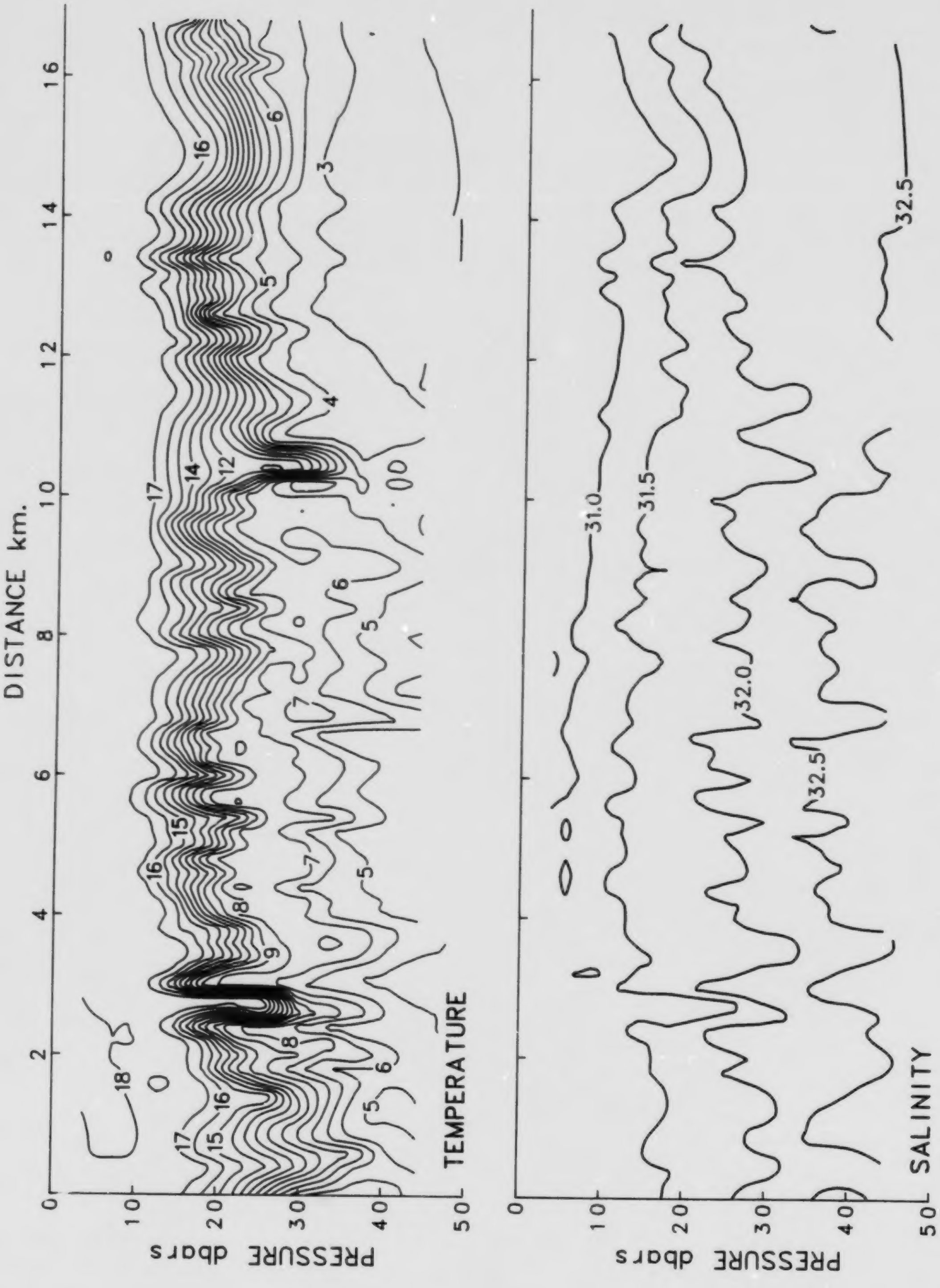

DISTANCE km.
0
2
4
6
8
10
12
14
16
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
17
16
15
14
12
9
8
7
6
5
4
3
SALINITY
31.0
31.5
32.0
32.5

Fig. 299

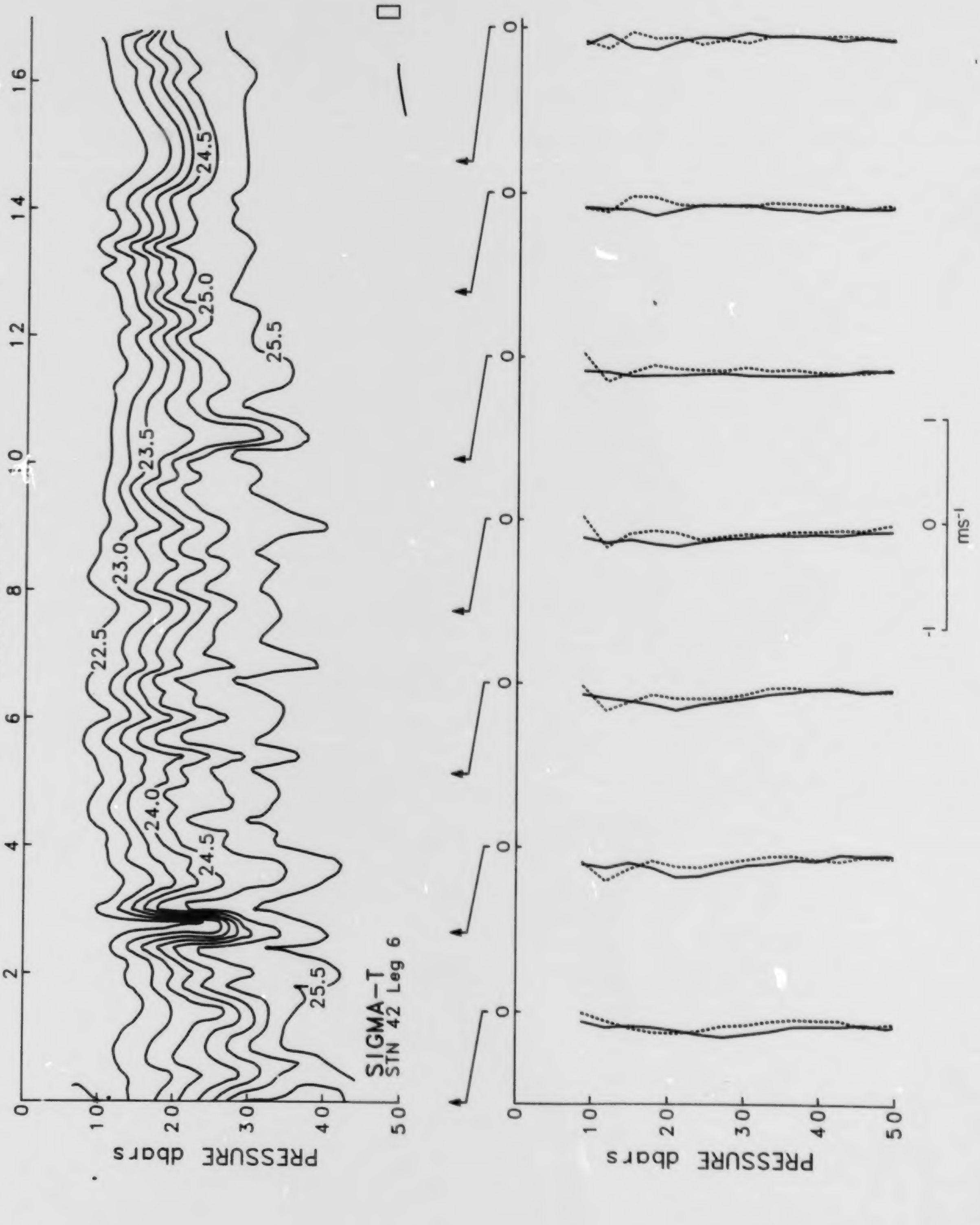

DISTANCE km.
0
2
4
6
8
10
12
14
16
PRESSURE dbars
0
10
20
30
40
50
22.5
23.0
23.5
24.0
24.5
25.0
25.5
SIGMA-T
STN 42 Leg 6
-1
0
1
ms-1

Fig. 300

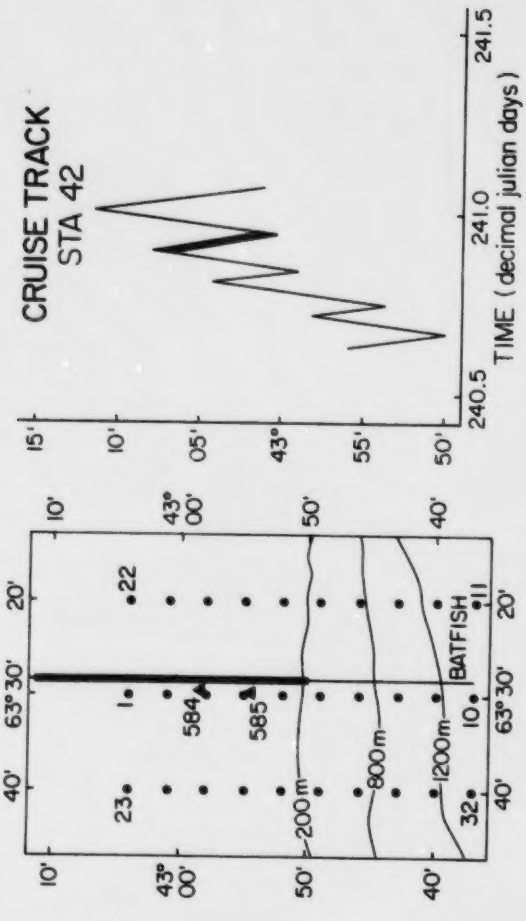

CRUISE TRACK
STA 42
15'
10'
05'
43°
55'
50'
240.5
241.0
241.5
TIME (decimal julian days)
10'
43° 00'
50'
40'
40'
63°30'
20'
23
22
1
584
585
200m
800m
1200m
10
11
32
BATFISH

Fig. 301

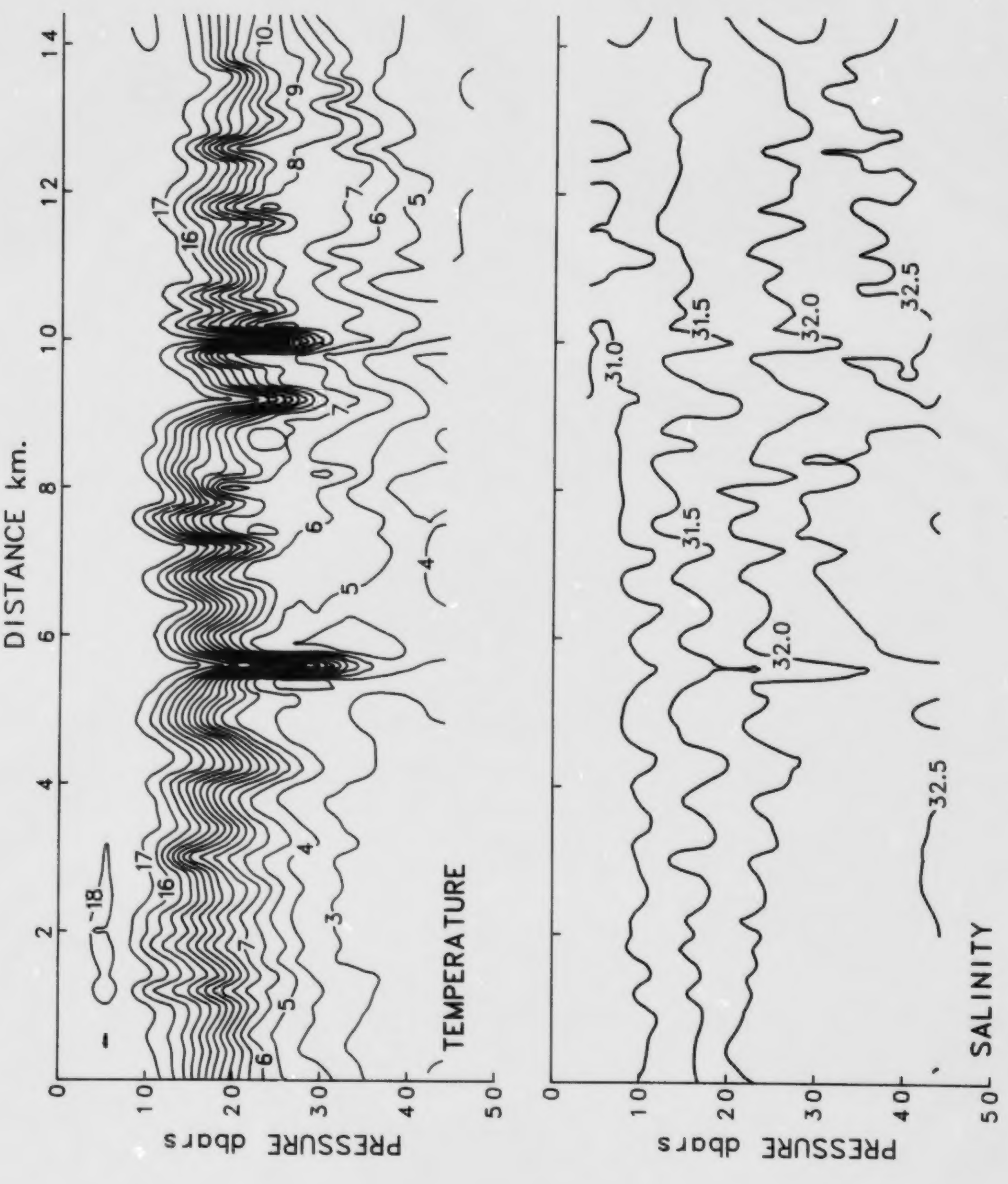

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
17
16
7
6
5
4
3
10
9
8
SALINITY
31.0
31.5
32.0
32.5

Fig. 302

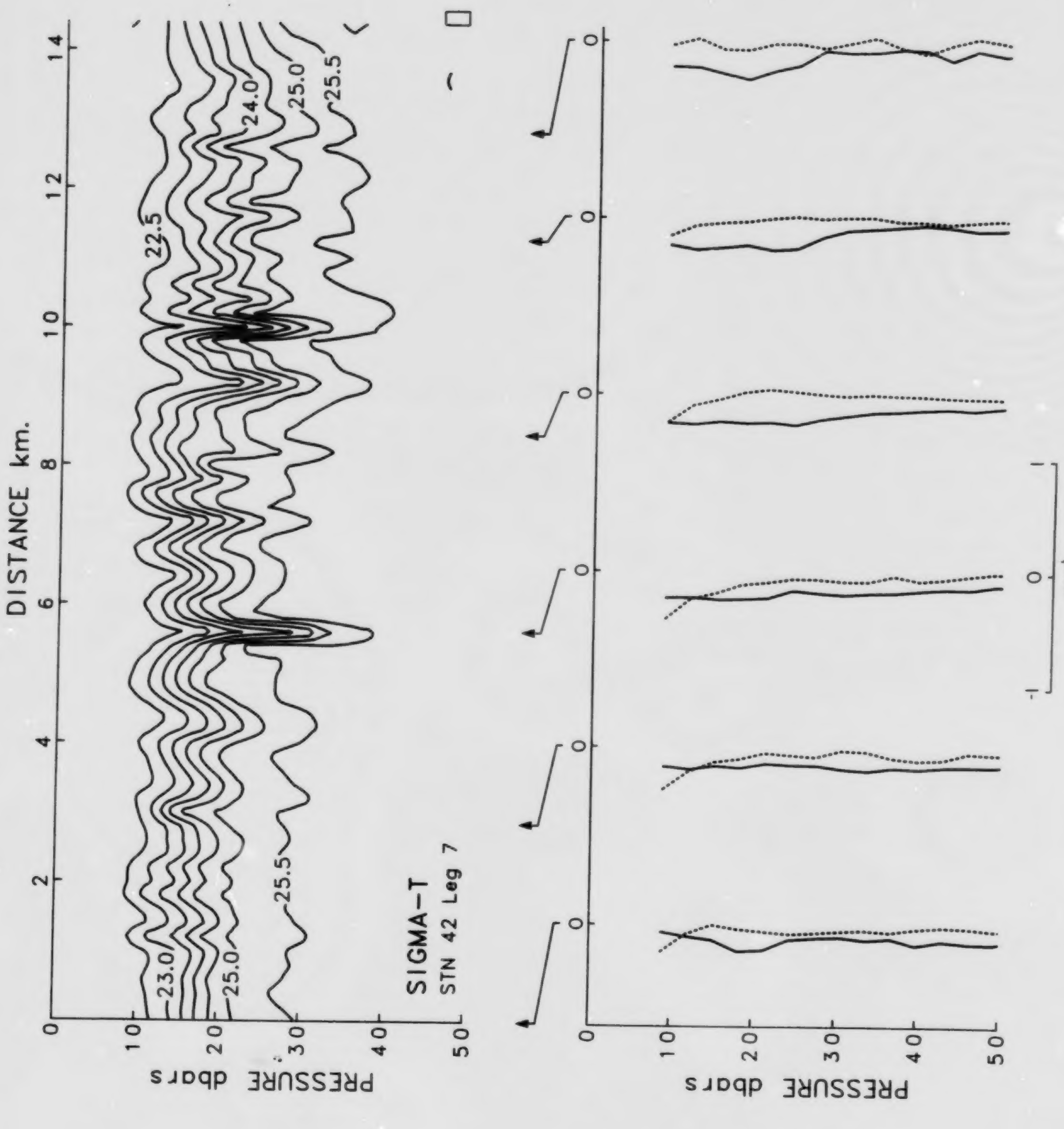

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
22.5
23.0
24.0
25.0
25.5
SIGMA-T
STN 42 Leg 7
0
-1
1
ms-1

Fig. 303

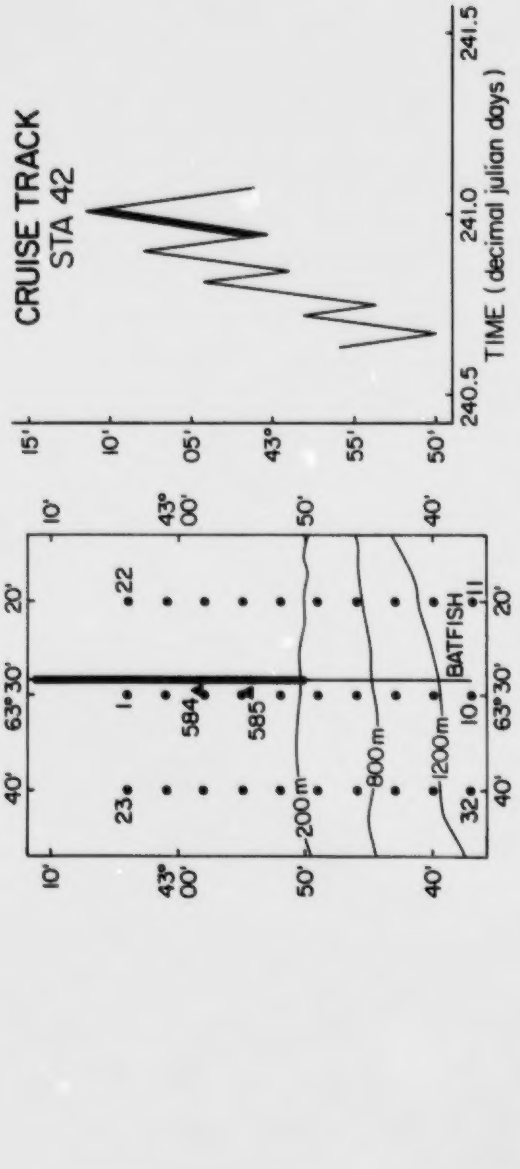

CRUISE TRACK
STA 42
TIME (decimal julian days)
240.5
241.0
241.5
15'
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
40'
63°30'
30'
20'
22
23
1
584
585
10
11
32
200m
800m
1200m
BATFISH

Fig. 304

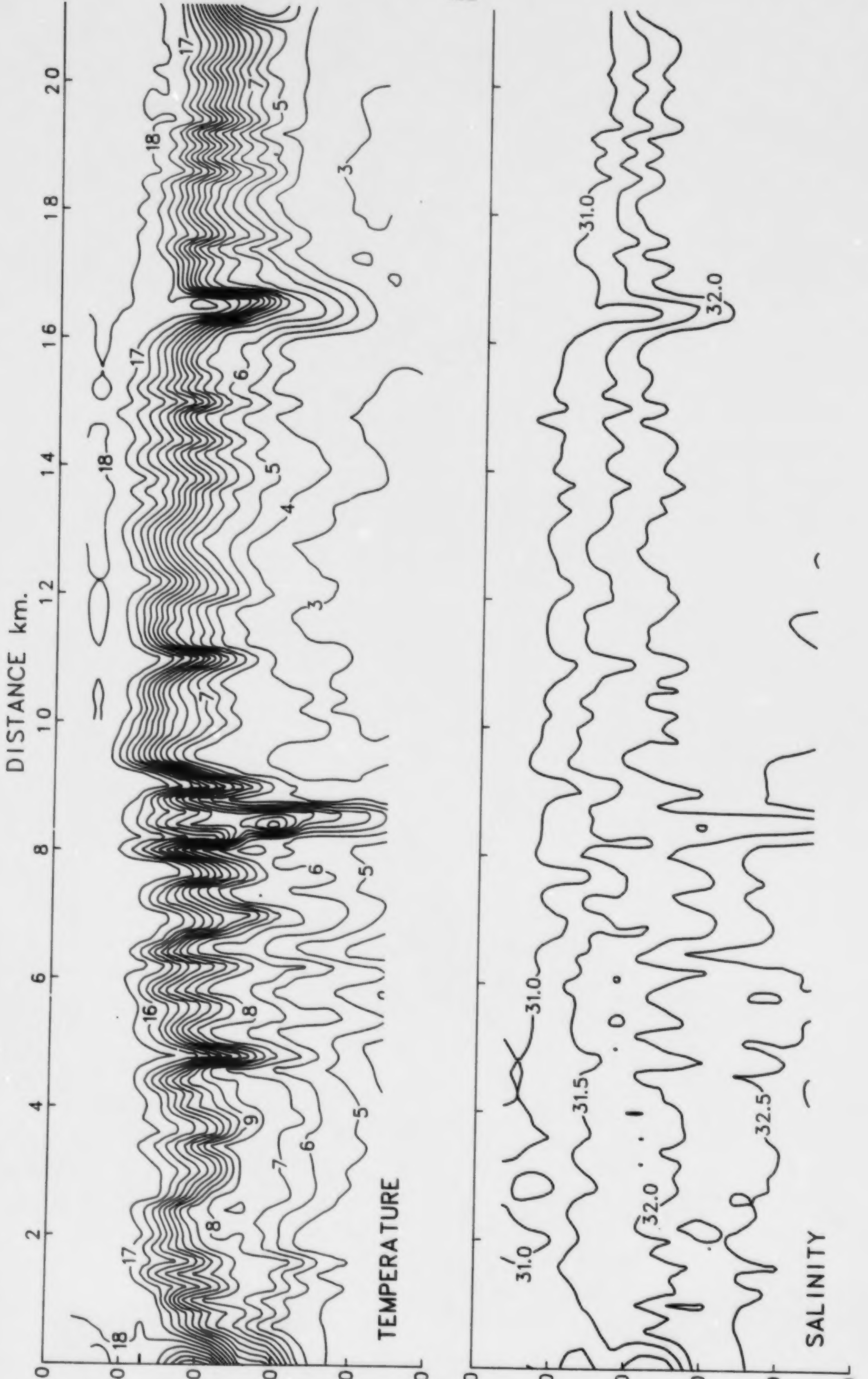

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
20
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
17
16
9
8
7
6
5
4
3
SALINITY
31.0
31.5
32.0
32.5

Fig. 305

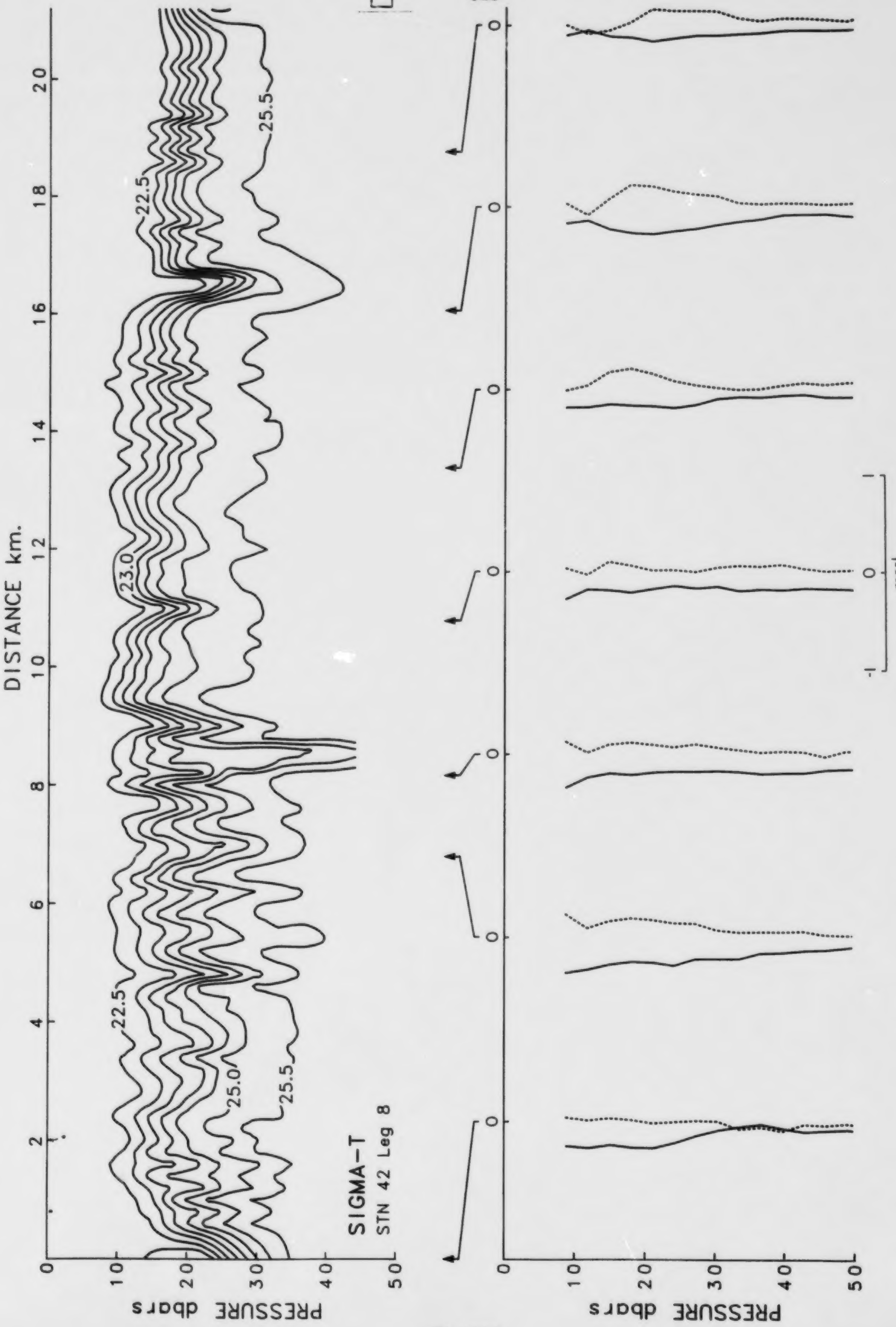

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
20
PRESSURE dbars
0
10
20
30
40
50
SIGMA-T
STN 42 Leg 8
22.5
23.0
25.0
25.5
0
1
-1
ms-1

Fig. 306

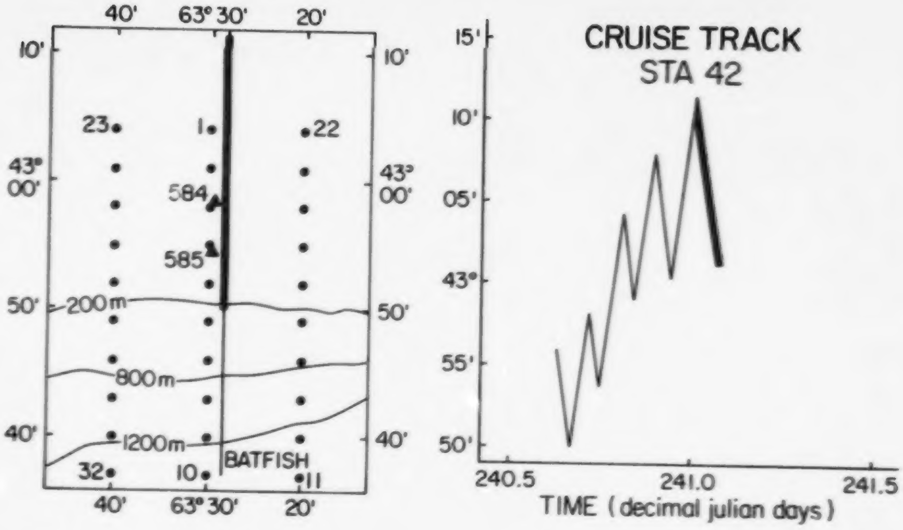

40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 42
15'
10'
05'
43°
55'
50'
240.5
241.0
241.5
TIME (decimal julian days)

Fig. 307

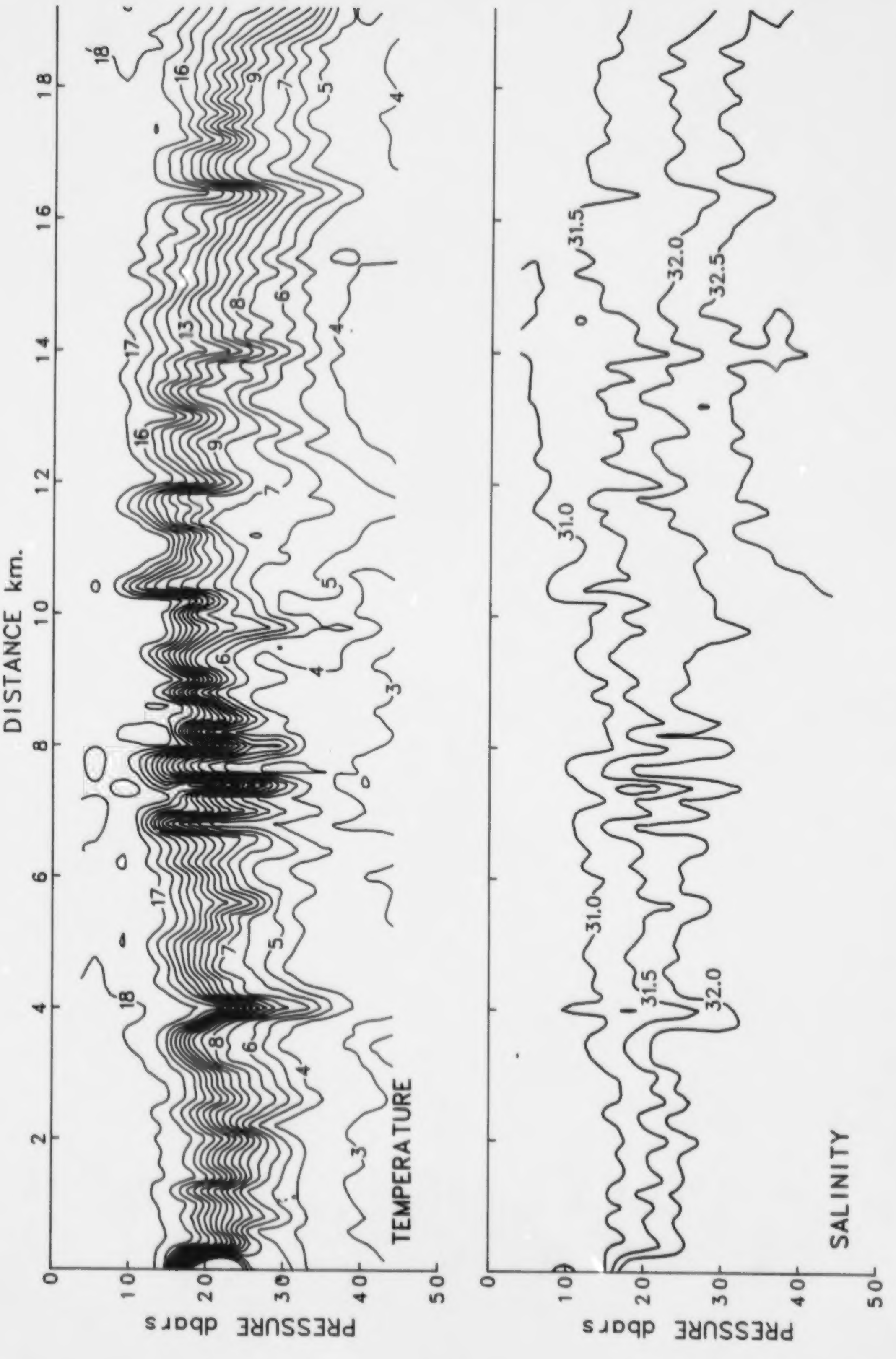

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
SALINITY
18
17
16
13
9
8
7
6
5
4
3
31.0
31.5
32.0
32.5

Fig. 308

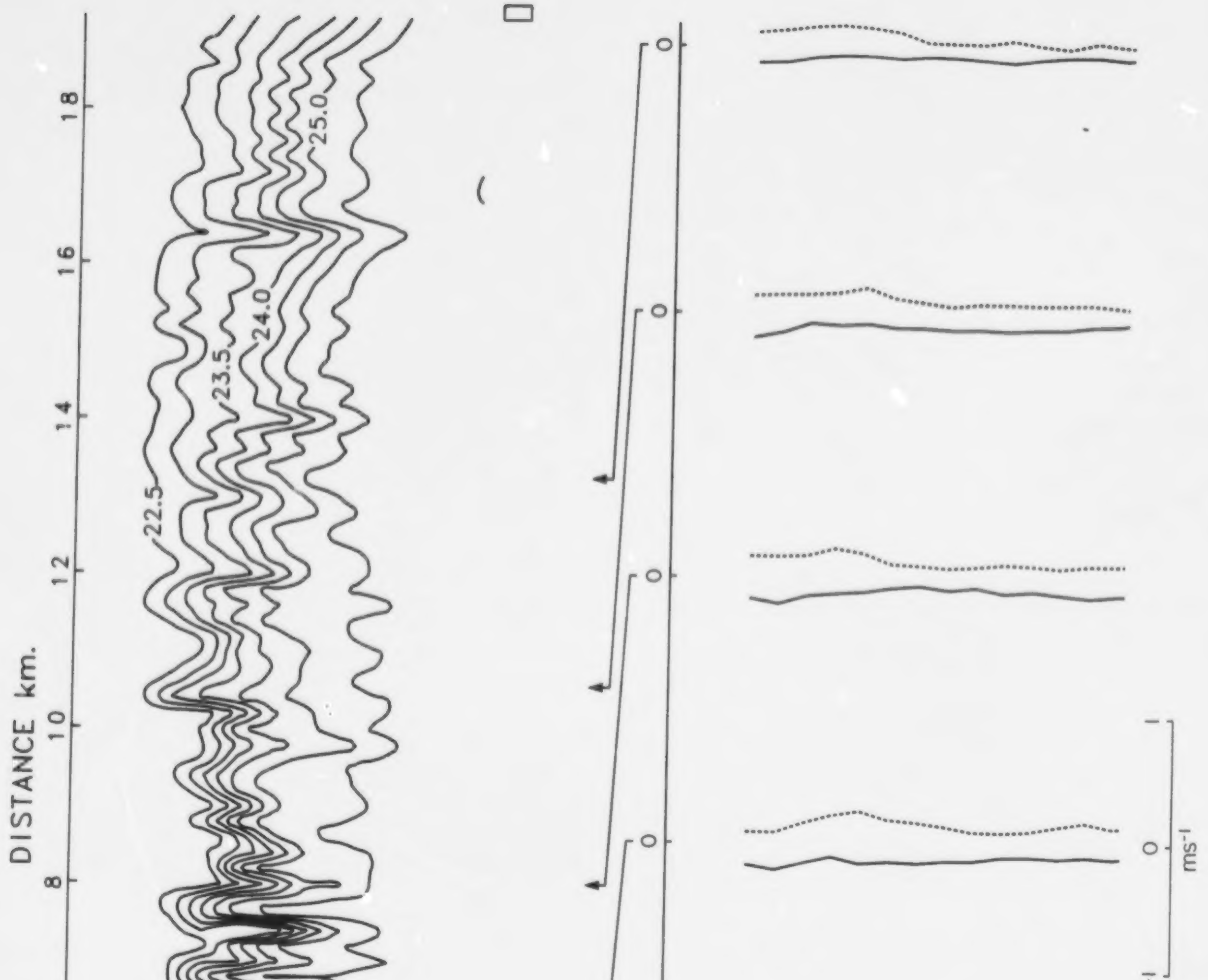

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
0
10
20
30
40
50
SIGMA-T
STN 42 Leg 9
22.5
23.0
23.5
24.0
25.0
25.0
25.5
0
0
0
0
0
0
-1
0
1
ms-1
PRESSURE dbars
0
10
20
30
40
50

Fig. 309

Figures 310-329

BATFISH station 43; 9 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

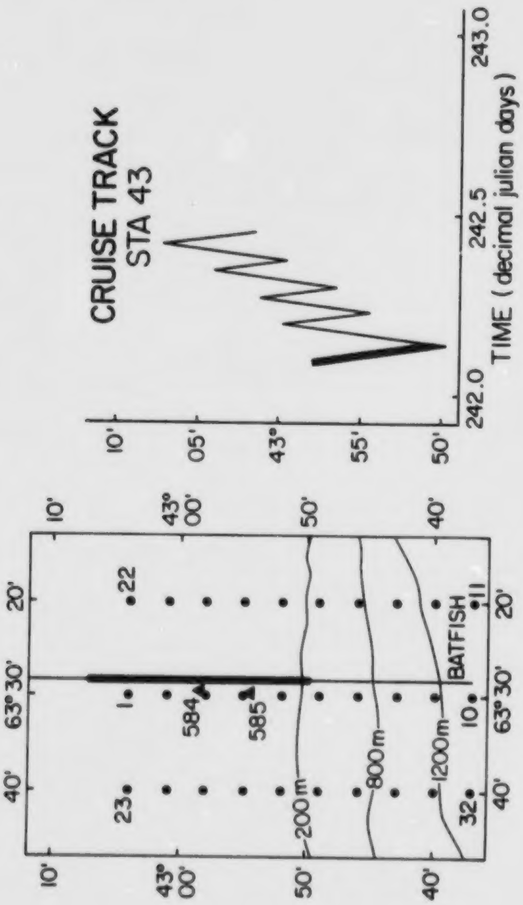

CRUISE TRACK
STA 43
TIME (decimal julian days)
242.0
242.5
243.0
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
40'
63° 30'
20'
22
1
23
584
585
200m
800m
1200m
BATFISH
11
10
32

Fig. 310

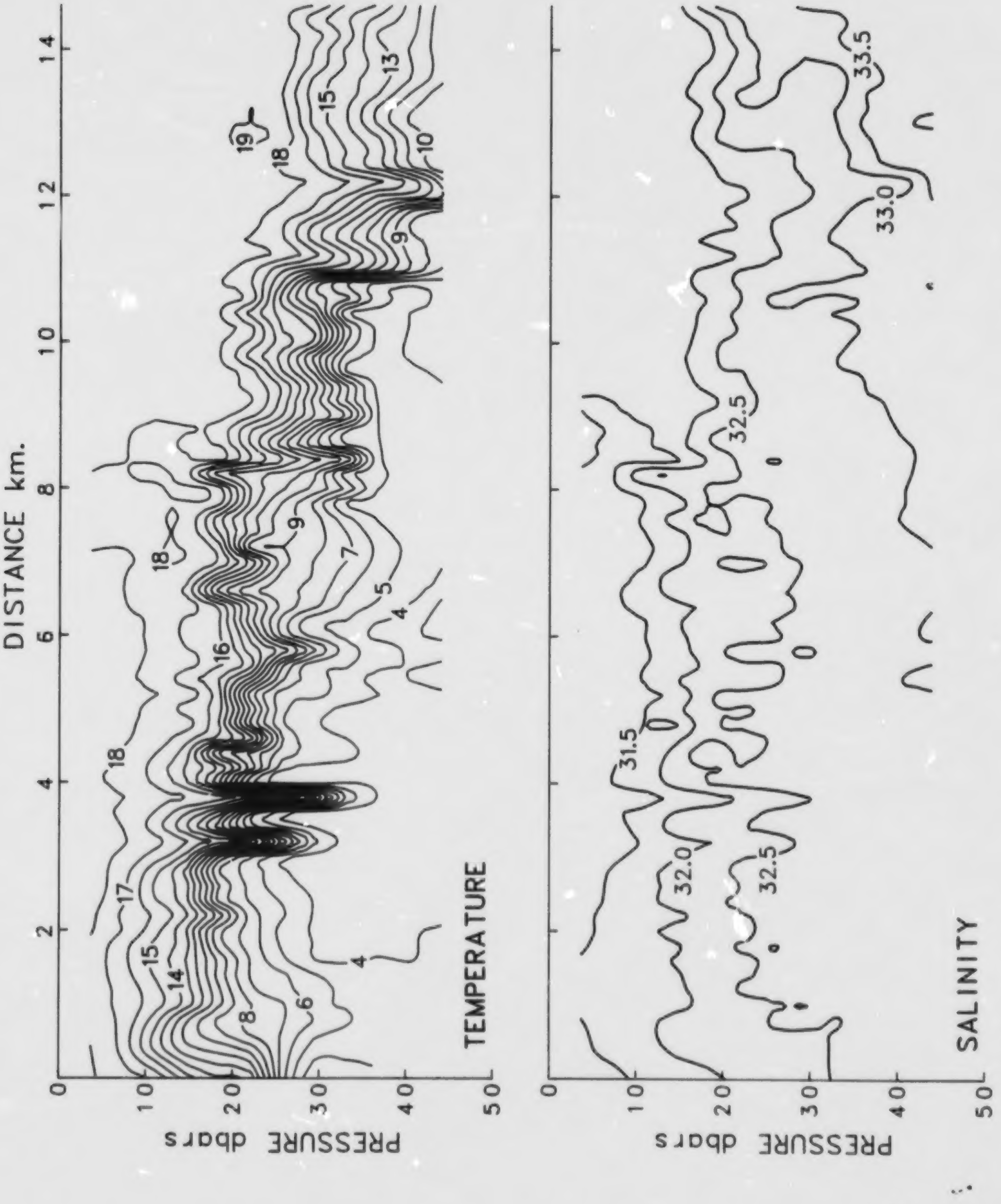

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
17
18
15
14
8
6
4
16
18
9
7
5
4
19
18
15
13
10
9
SALINITY
31.5
32.0
32.5
32.5
33.0
33.5

Fig. 311

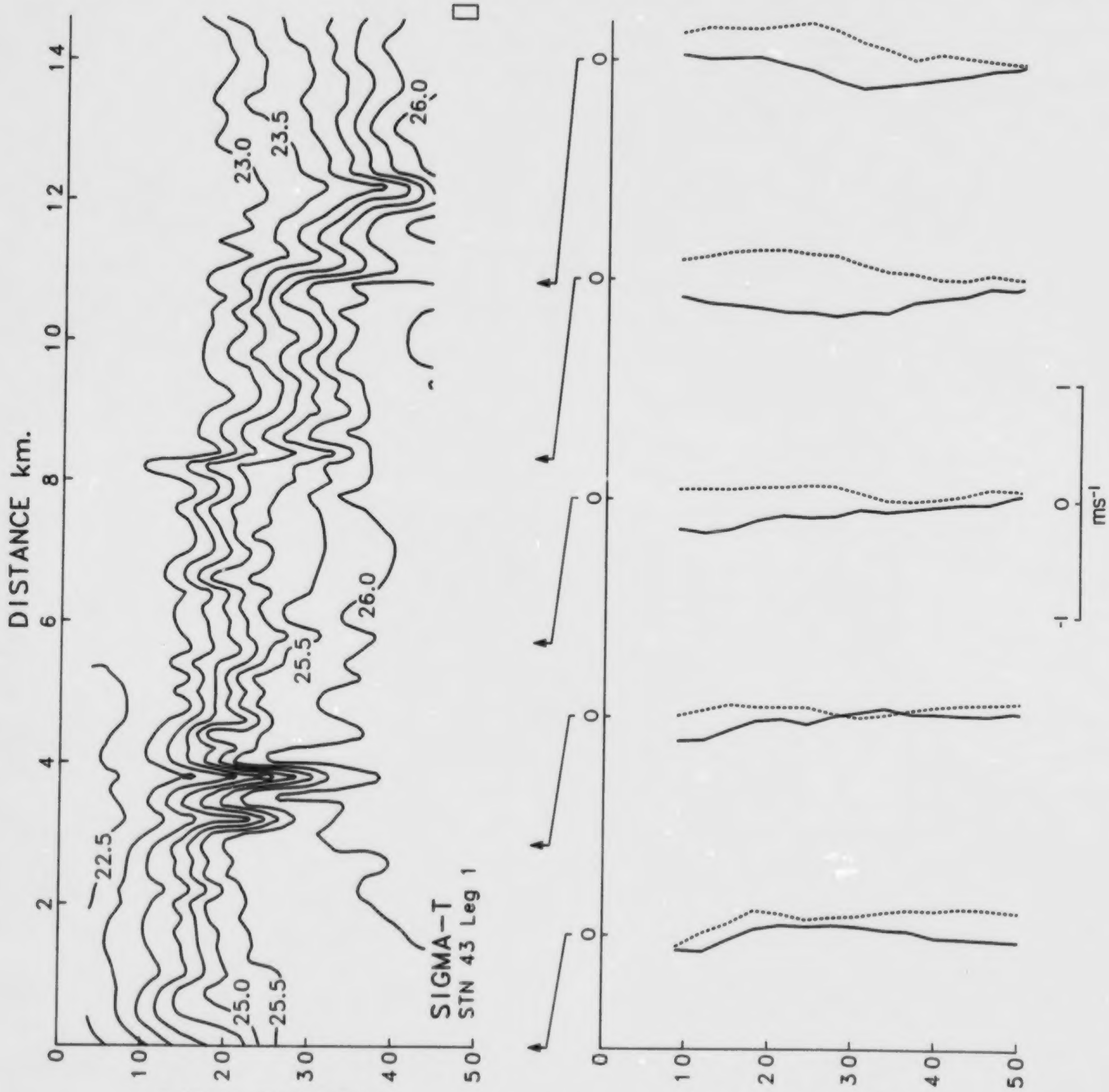

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
22.5
23.0
23.5
25.0
25.5
26.0
SIGMA-T
STN 43 Leg 1
PRESSURE dbars
0
10
20
30
40
50
-1
0
1
ms^{-1}

Fig. 312

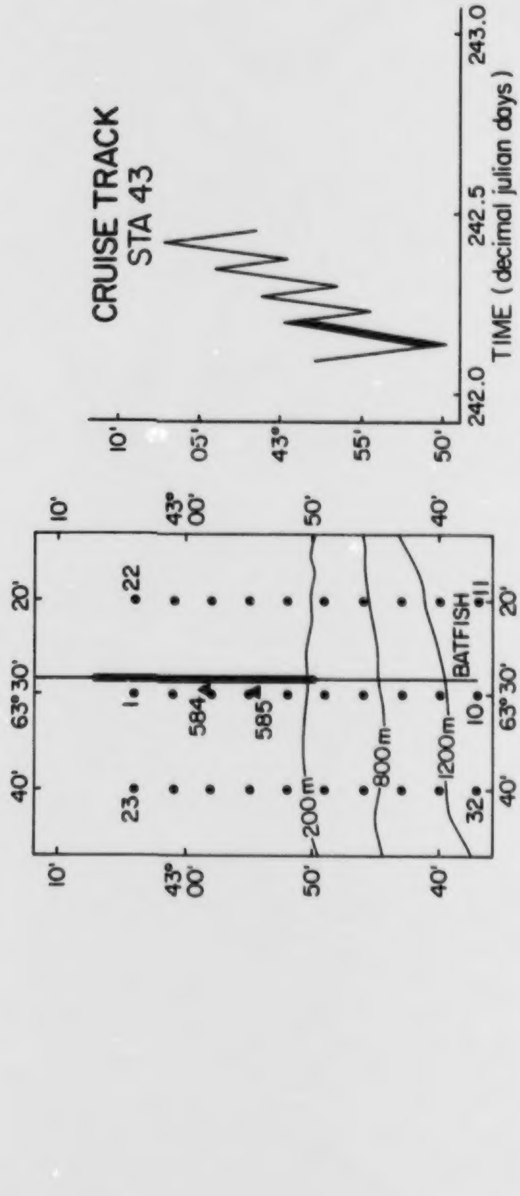

CRUISE TRACK
STA 43
TIME (decimal julian days)
242.0
242.5
243.0
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
40'
63°30'
20'
23
22
1
584
585
200m
800m
1200m
BATFISH
32
10
11

Fig. 313

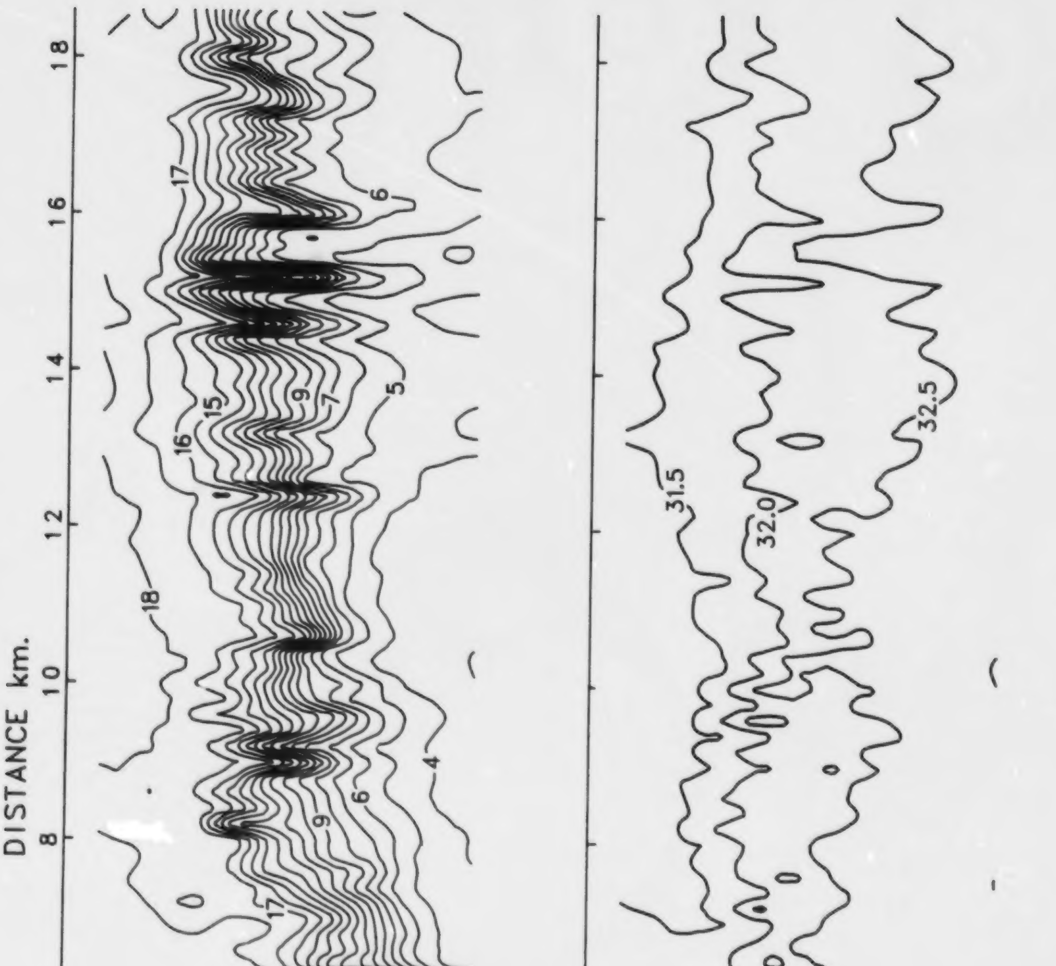

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
16
14
13
8
5
17
9
6
4
18
16
15
9
7
5
17
6
SALINITY
32.0
32.5
33.0
33.5
33.5
31.5
32.0
32.5
PRESSURE dbars
0
10
20
30
40
50

Fig. 314

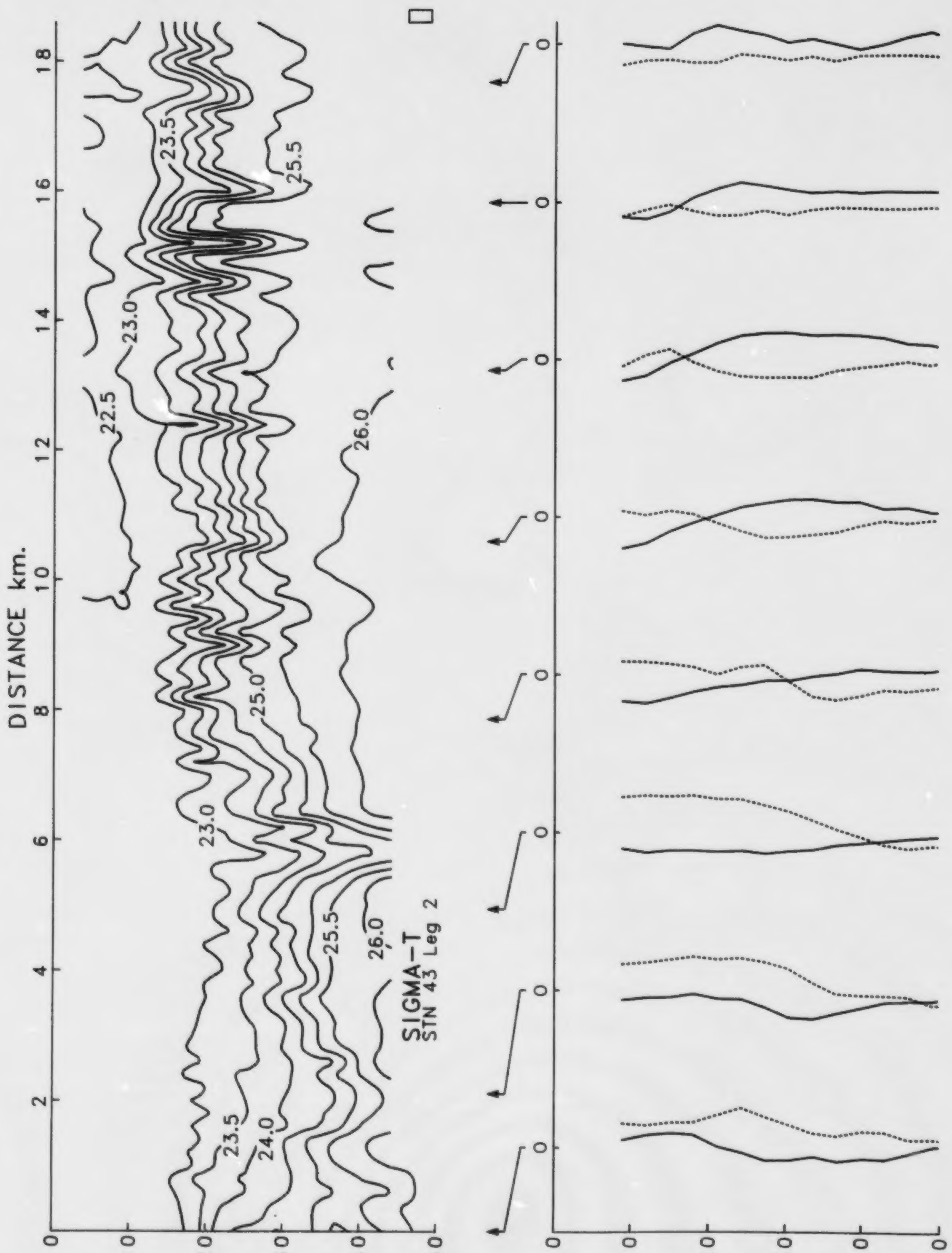

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
0
10
20
30
40
50
SIGMA-T
STN 43 Leg 2
22.5
23.0
23.5
24.0
25.0
25.5
26.0
-1
0
1
ms-1

Fig. 315

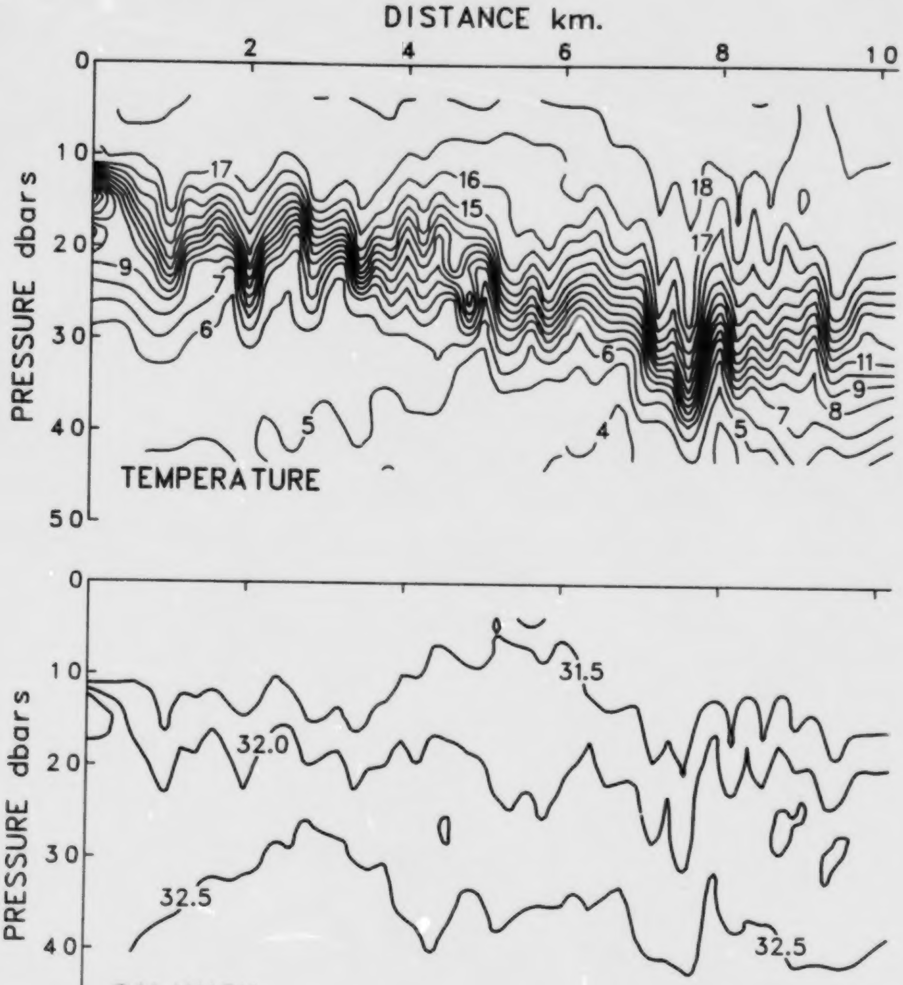

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
17
16
15
18
17
9
7
6
6
5
4
5
11
9
8
7
TEMPERATURE
31.5
32.0
32.5
32.5
SALINITY
40'
63° 30'
20'
10'
23
1
22
43°
00'
584
585
50'
200m
800m
1200m
40'
32
10
11
BATFISH
CRUISE TRACK
STA 43
05'
55'
242.0
242.5
243.0
TIME (decimal julian days)

Fig. 316

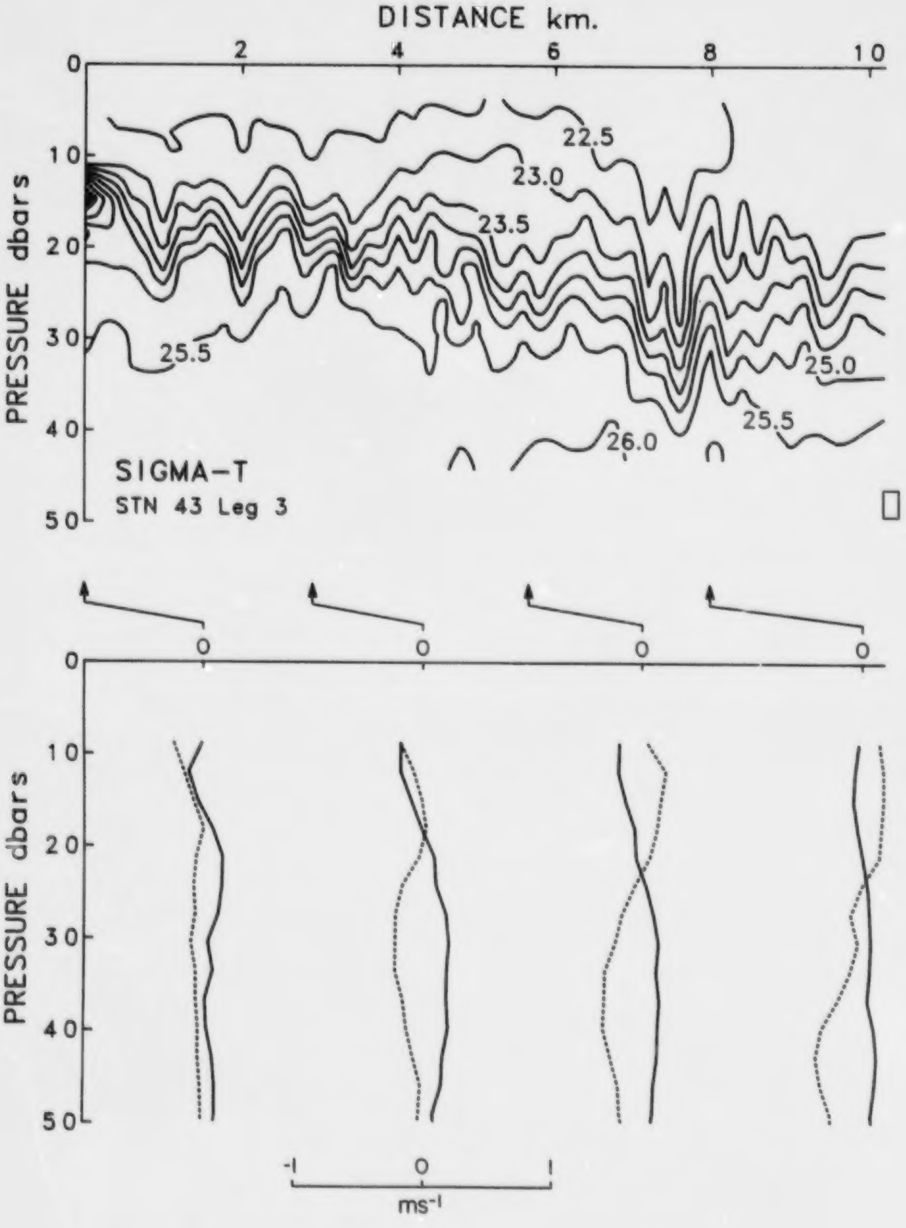
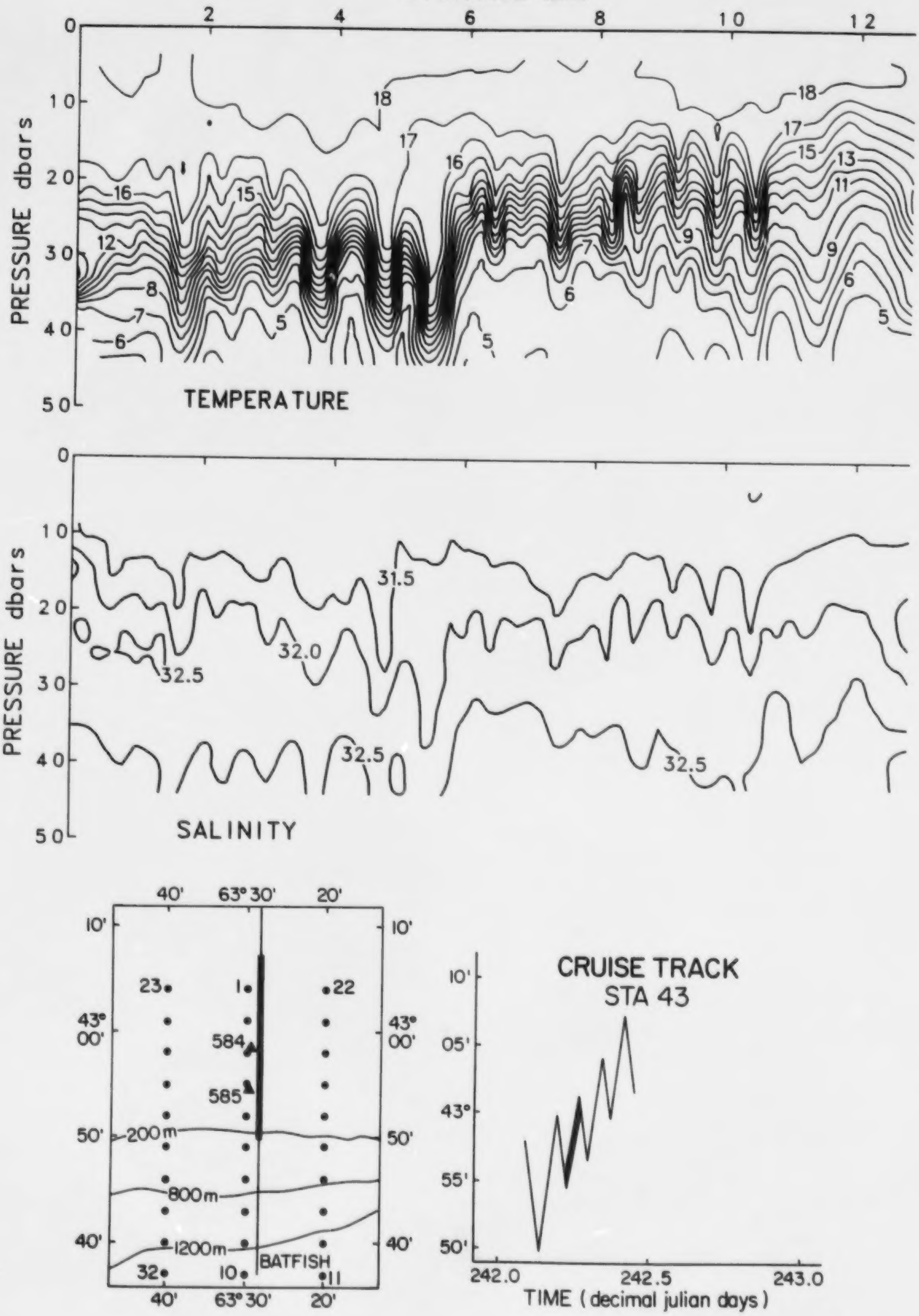

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
22.5
23.0
23.5
25.0
25.5
25.5
26.0
SIGMA-T
STN 43 Leg 3
0
0
0
0
0
PRESSURE dbars
10
20
30
40
50
-1
0
1
ms-1

Fig. 317



DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
10
20
30
40
50
18
17
16
15
13
11
12
9
8
7
6
5
TEMPERATURE
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 43
05'
55'
242.0
242.5
243.0
TIME (decimal julian days)

Fig. 318

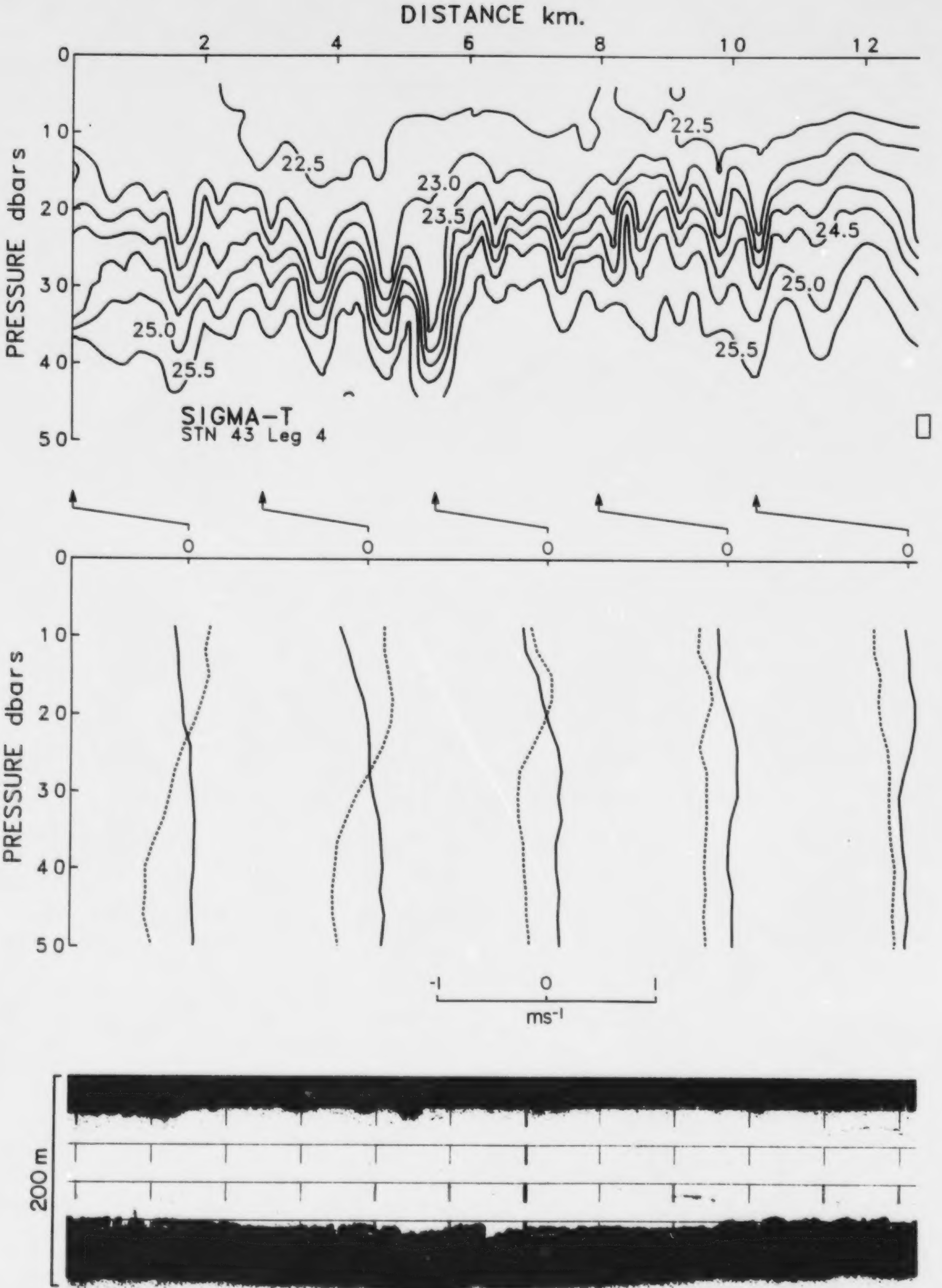

DISTANCE km.
2
4
6
8
10
12
0
10
20
30
40
50
PRESSURE dbars
22.5
22.5
23.0
23.5
24.5
25.0
25.0
25.5
25.5
SIGMA-T
STN 43 Leg 4
0
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1
200 m

Fig. 319

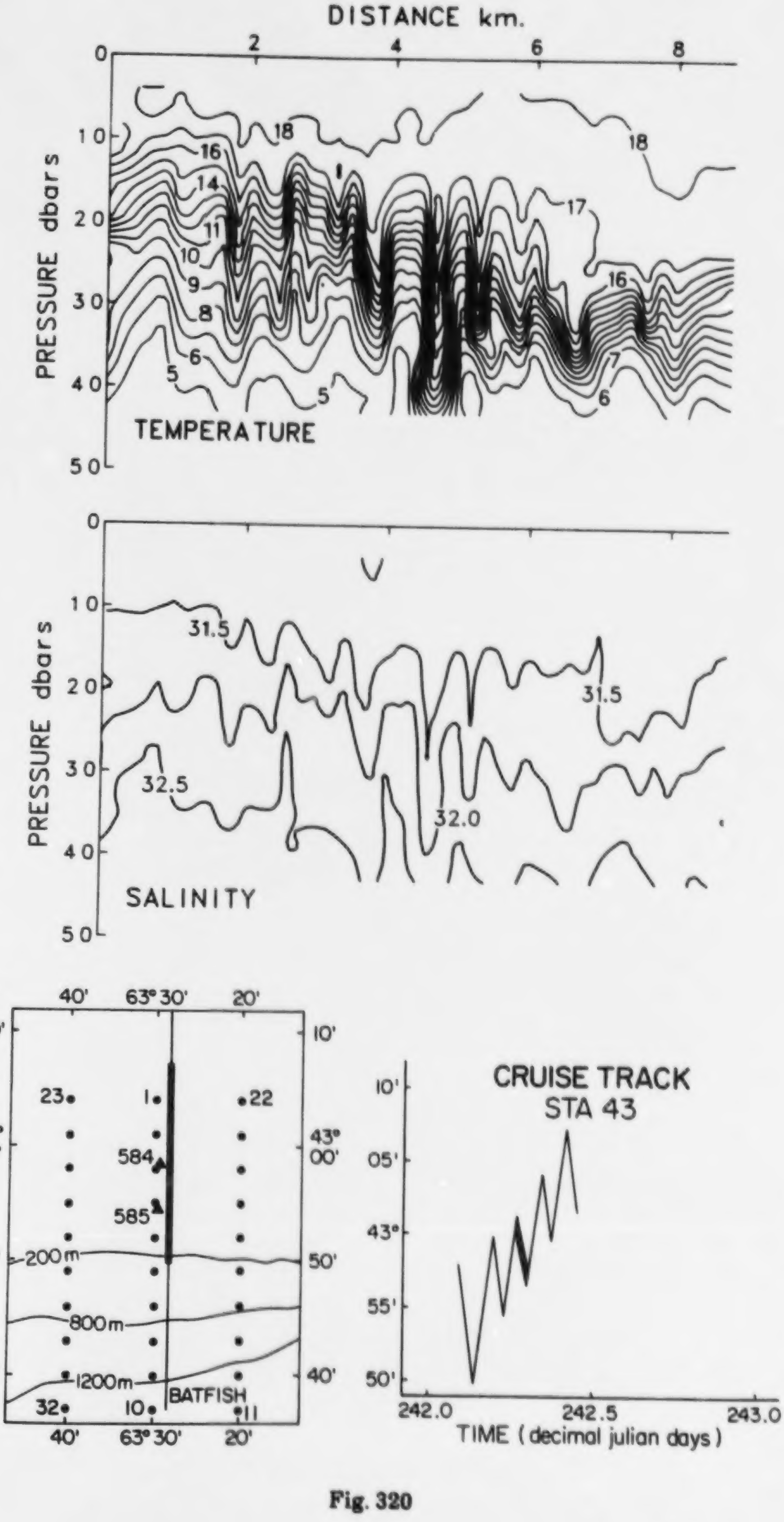

DISTANCE km.
0
2
4
6
8
PRESSURE dbars
10
20
30
40
50
18
16
14
11
10
9
8
6
5
17
7
TEMPERATURE
31.5
32.5
32.0
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 43
05'
43°
55'
242.0
242.5
243.0
TIME (decimal julian days)

Fig. 320

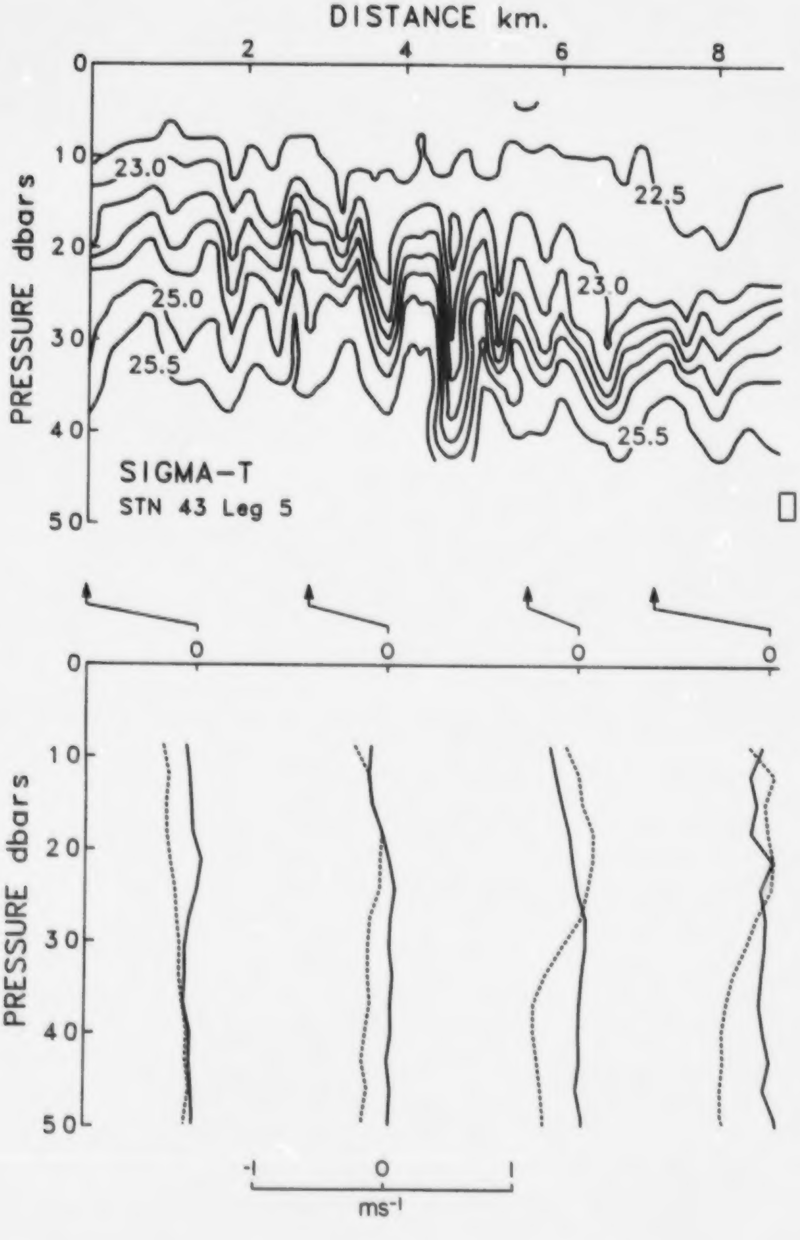

DISTANCE km.
0
2
4
6
8
10
20
30
40
50
PRESSURE dbars
23.0
22.5
23.0
25.0
25.5
25.5
SIGMA-T
STN 43 Leg 5
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms⁻¹

Fig. 321

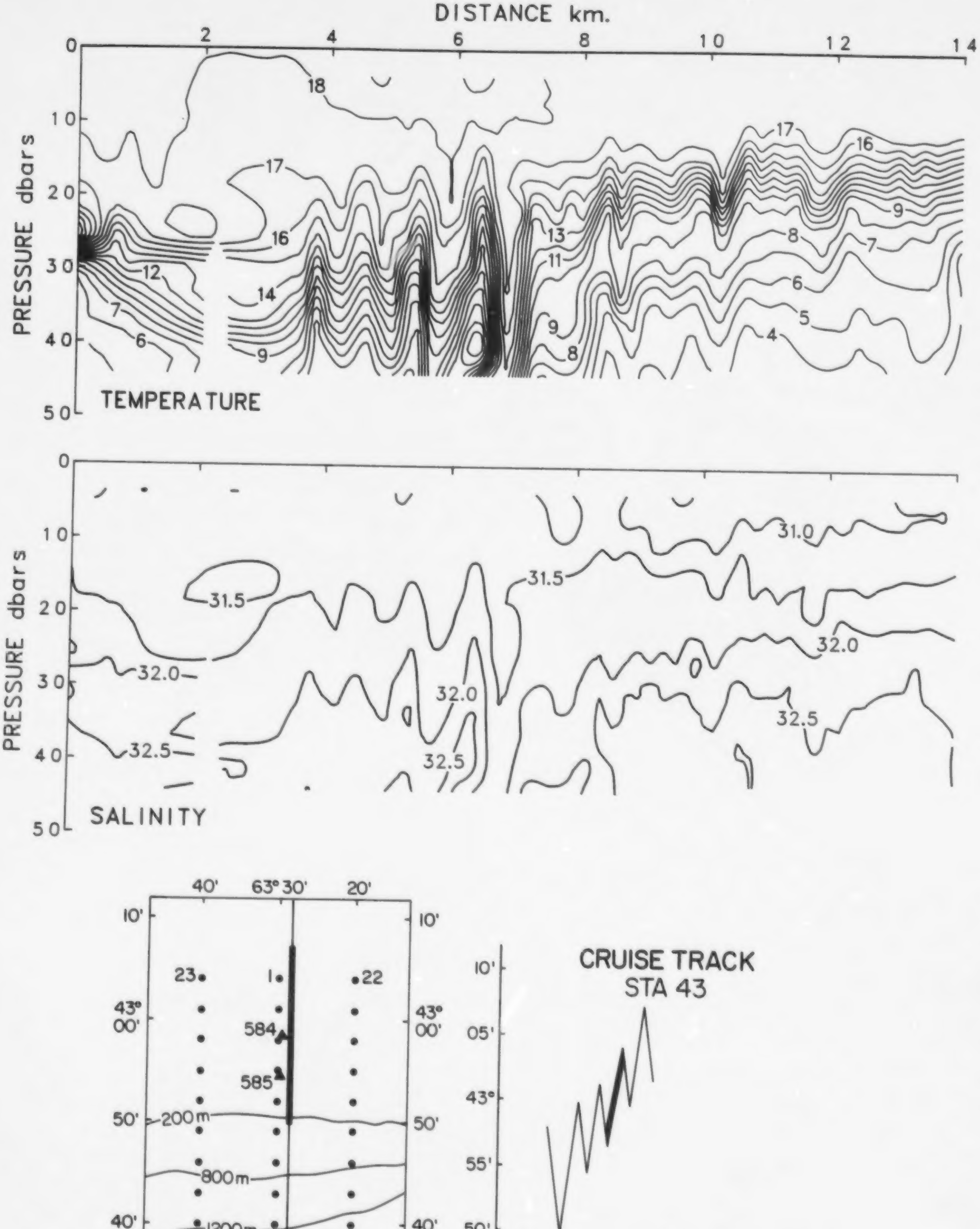

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
10
20
30
40
50
18
17
16
14
13
12
11
9
8
7
6
5
4
TEMPERATURE
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 43
05'
55'
242.0
242.5
243.0
TIME (decimal julian days)

Fig. 322

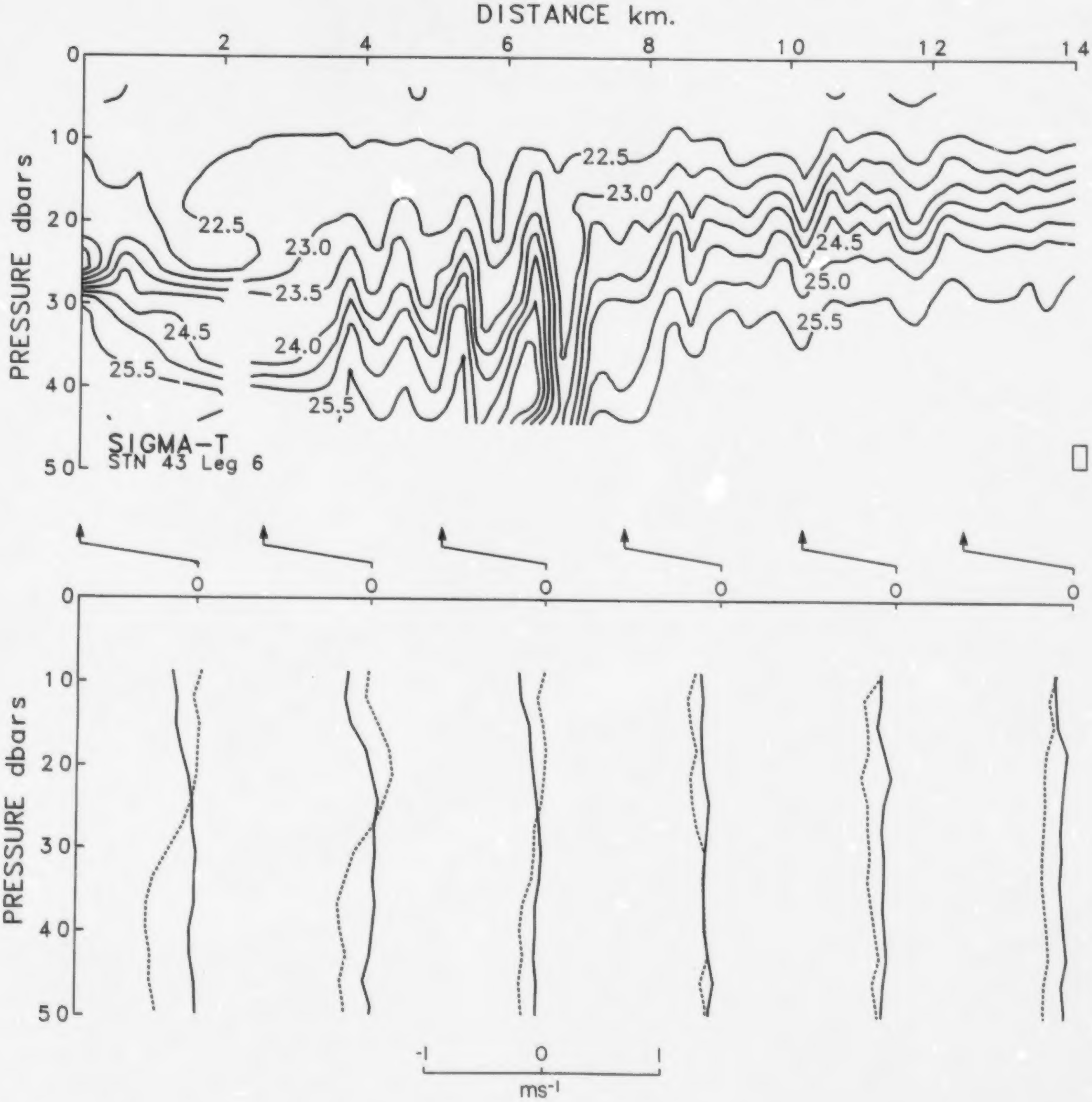

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
10
20
30
40
50
22.5
23.0
23.5
24.0
24.5
25.0
25.5
SIGMA-T
STN 43 Leg 6
0
-1
1
ms-1

Fig. 323

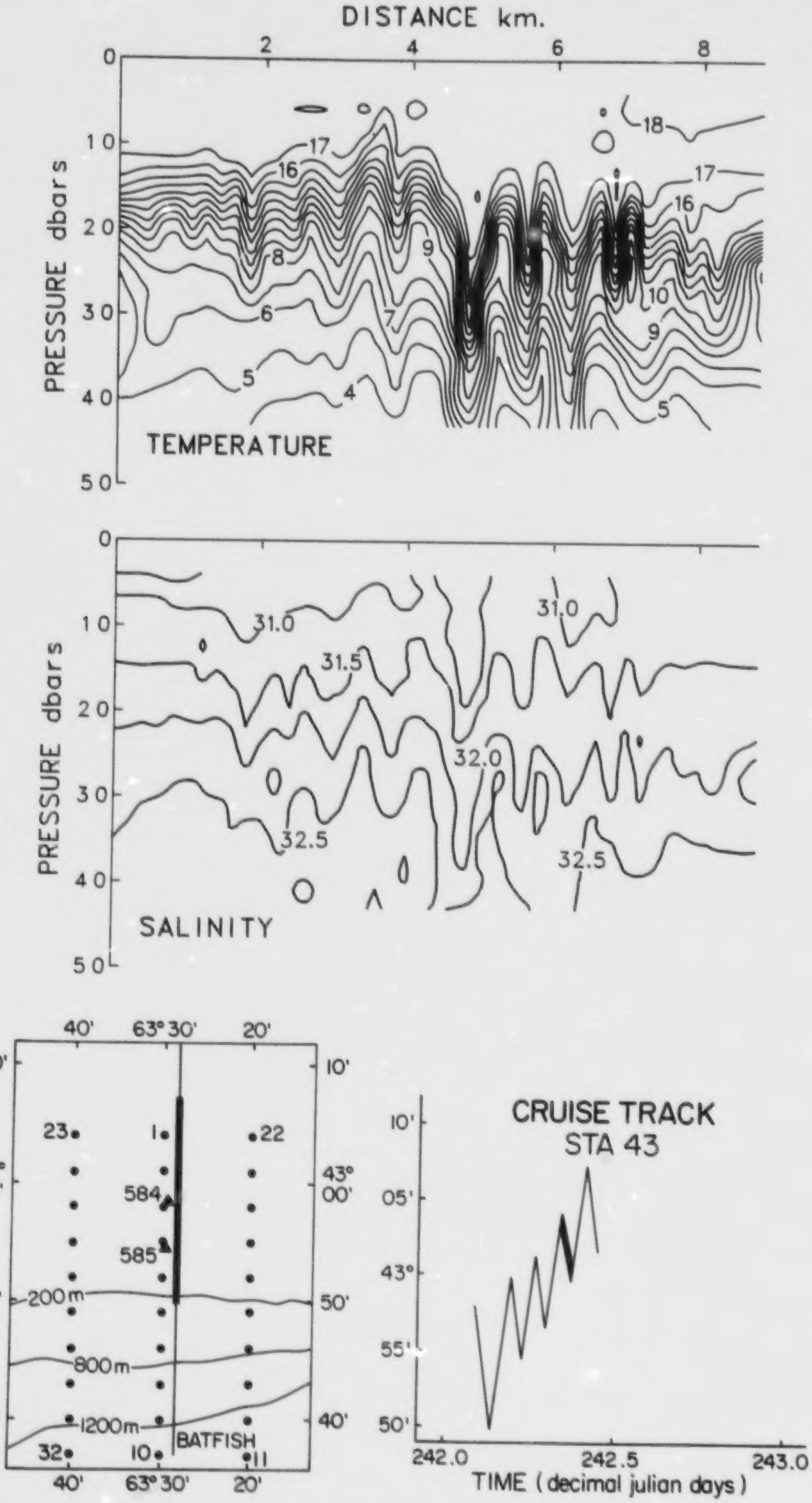

DISTANCE km.
2
4
6
8
0
10
20
30
40
50
PRESSURE dbars
18
17
16
9
8
10
7
6
5
4
TEMPERATURE
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
23
1
22
43°
00'
584
585
50'
200m
800m
40'
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 43
05'
55'
242.0
242.5
243.0
TIME (decimal julian days)

Fig. 324

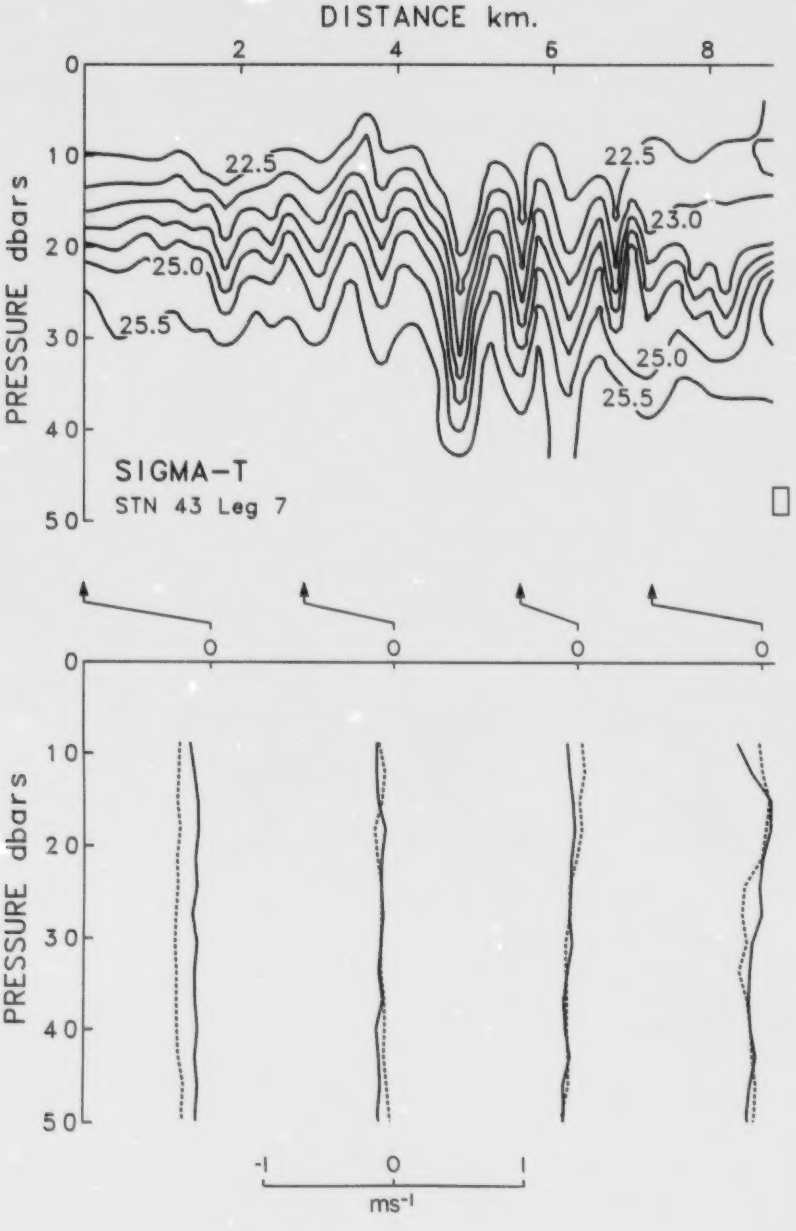

DISTANCE km.
2
4
6
8
0
10
20
30
40
50
PRESSURE dbars
22.5
22.5
23.0
25.0
25.0
25.5
25.5
SIGMA-T
STN 43 Leg 7
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1

Fig. 325

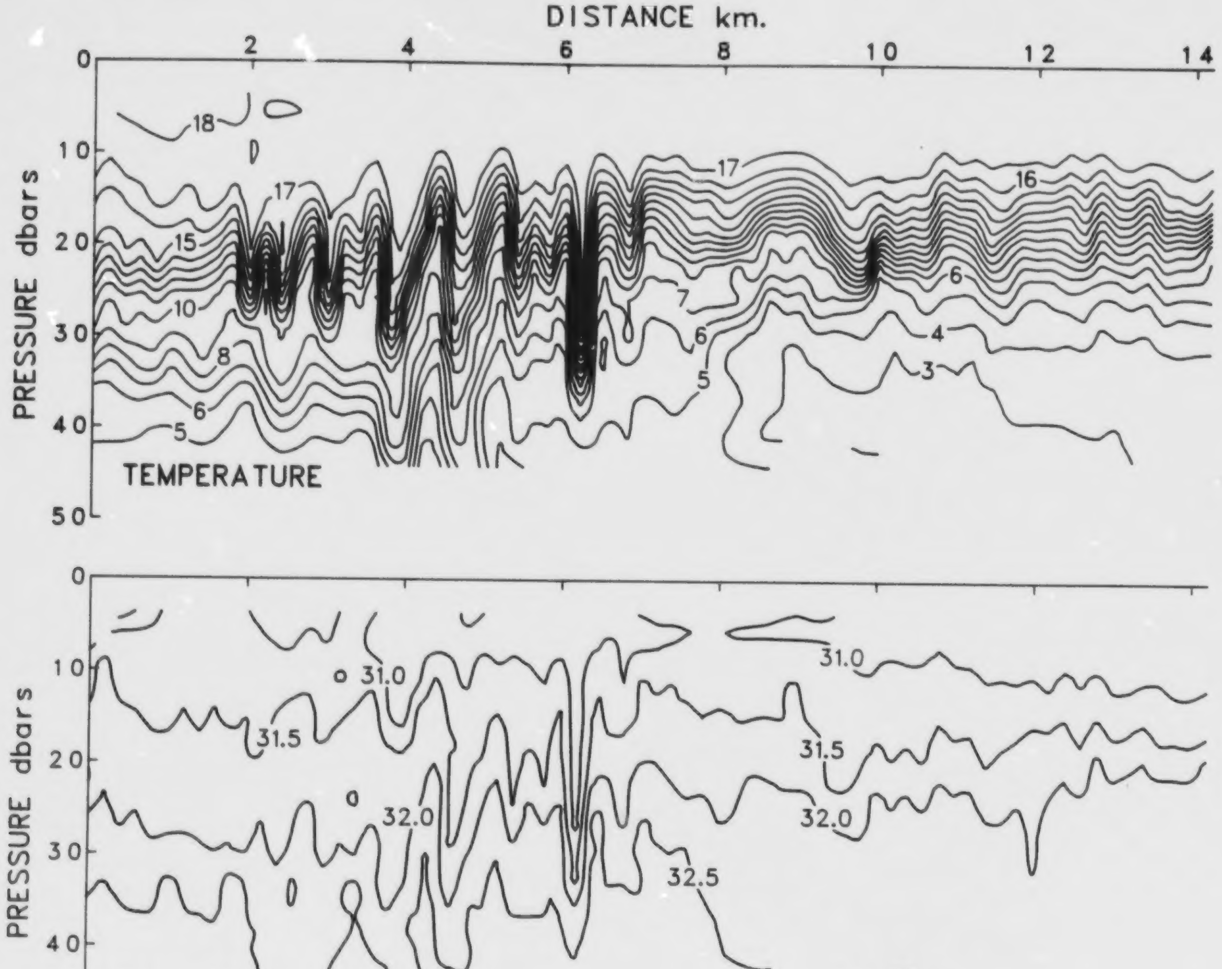

DISTANCE km.
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
18
17
16
15
10
8
7
6
5
4
3
TEMPERATURE
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 43
05'
43°
55'
242.0
242.5
243.0
TIME (decimal julian days)

Fig. 326

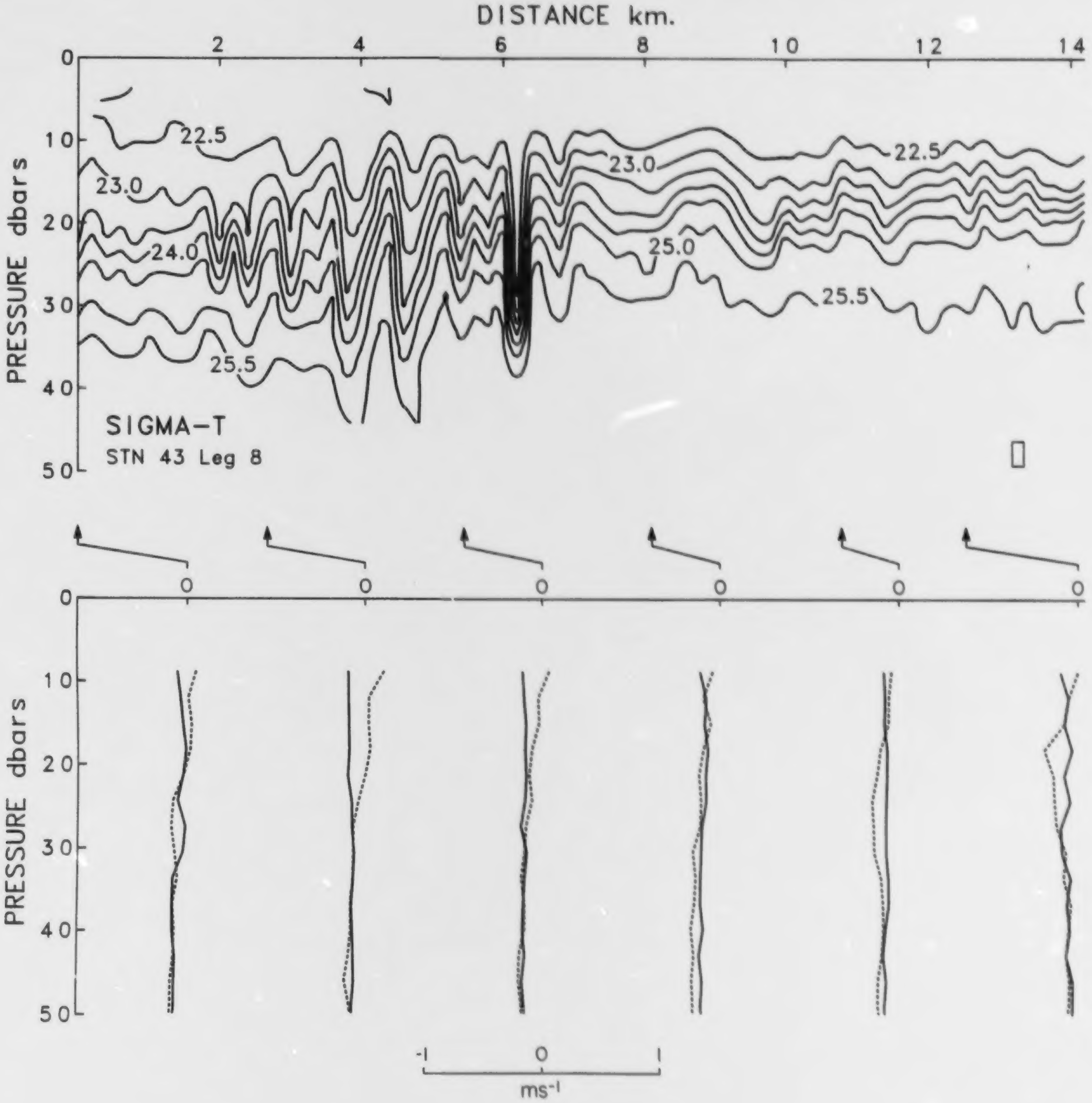

DISTANCE km.
2
4
6
8
10
12
14
0
10
20
30
40
50
PRESSURE dbars
22.5
23.0
24.0
25.0
25.5
SIGMA-T
STN 43 Leg 8
-1
0
1
ms-1

Fig. 327

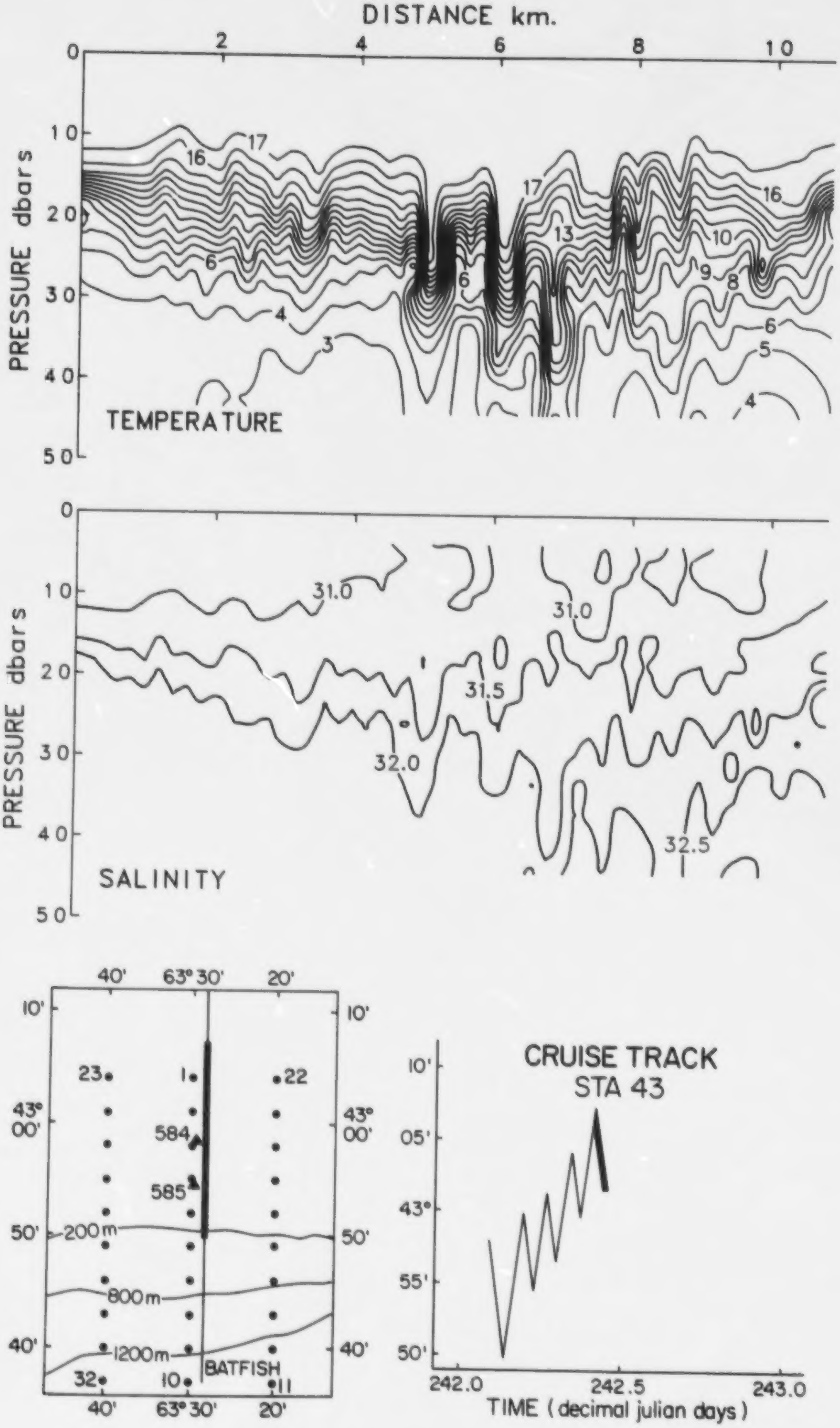

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
17
16
6
4
3
17
13
10
9
8
6
5
4
16
TEMPERATURE
31.0
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 43
10'
05'
43°
55'
50'
242.0
242.5
243.0
TIME (decimal julian days)

Fig. 328

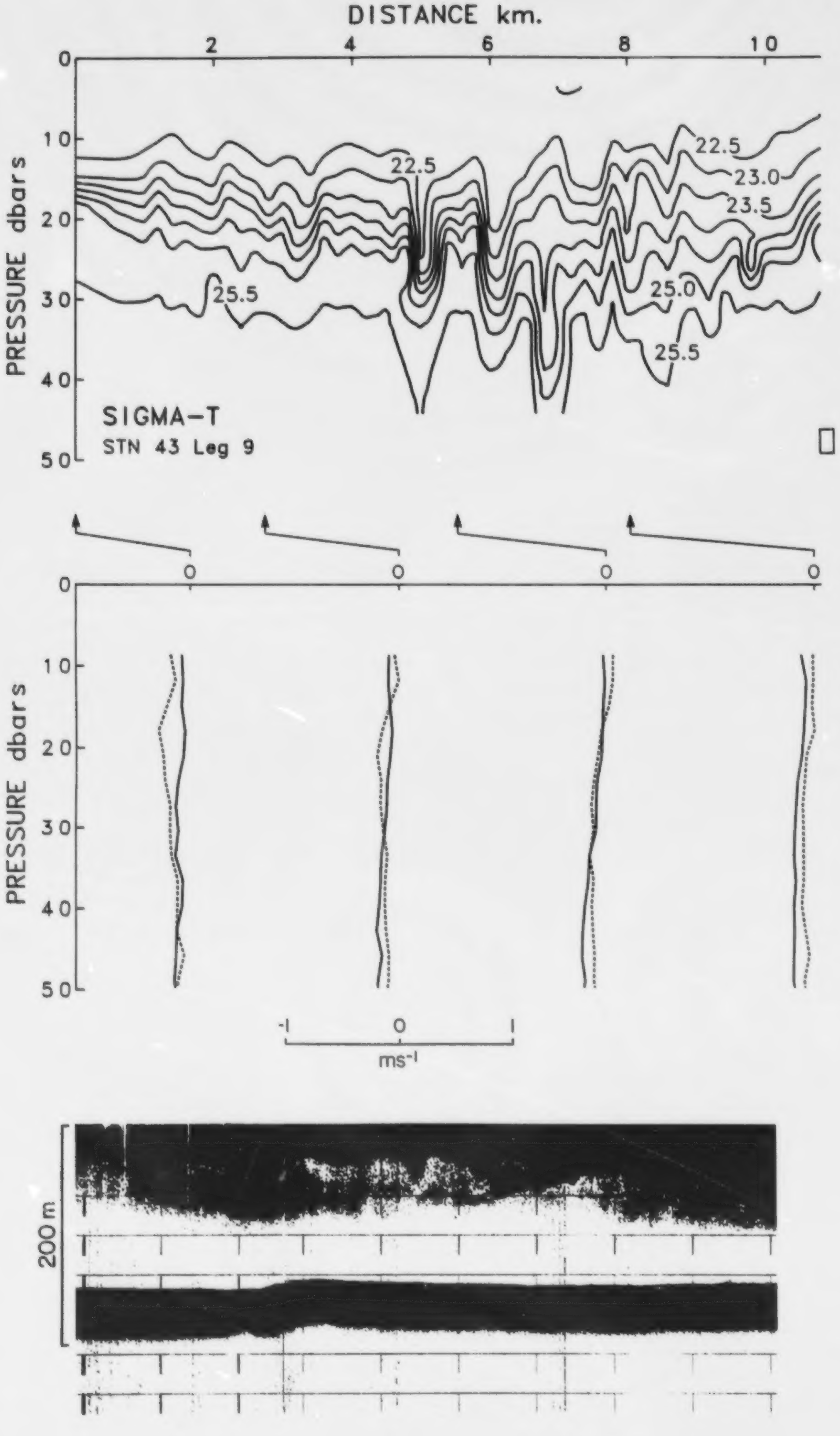

DISTANCE km.
2
4
6
8
10
0
10
20
30
40
50
PRESSURE dbars
22.5
22.5
23.0
23.5
25.0
25.5
25.5
SIGMA-T
STN 43 Leg 9
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms⁻¹
200 m

Fig. 329

Figures 330-360

BATFISH station 47; 14 sections of Temperature, Salinity and Sigma-t vs. Pressure, profiles of current components U (east, solid line) and V (north, dashed line) from Doppler Acoustic current meter, location map and latitude vs. time plot. Selected legs are accompanied by the 12 kHz sounder record. The approximate location of the current components in the Sigma-t section is indicated by arrows.

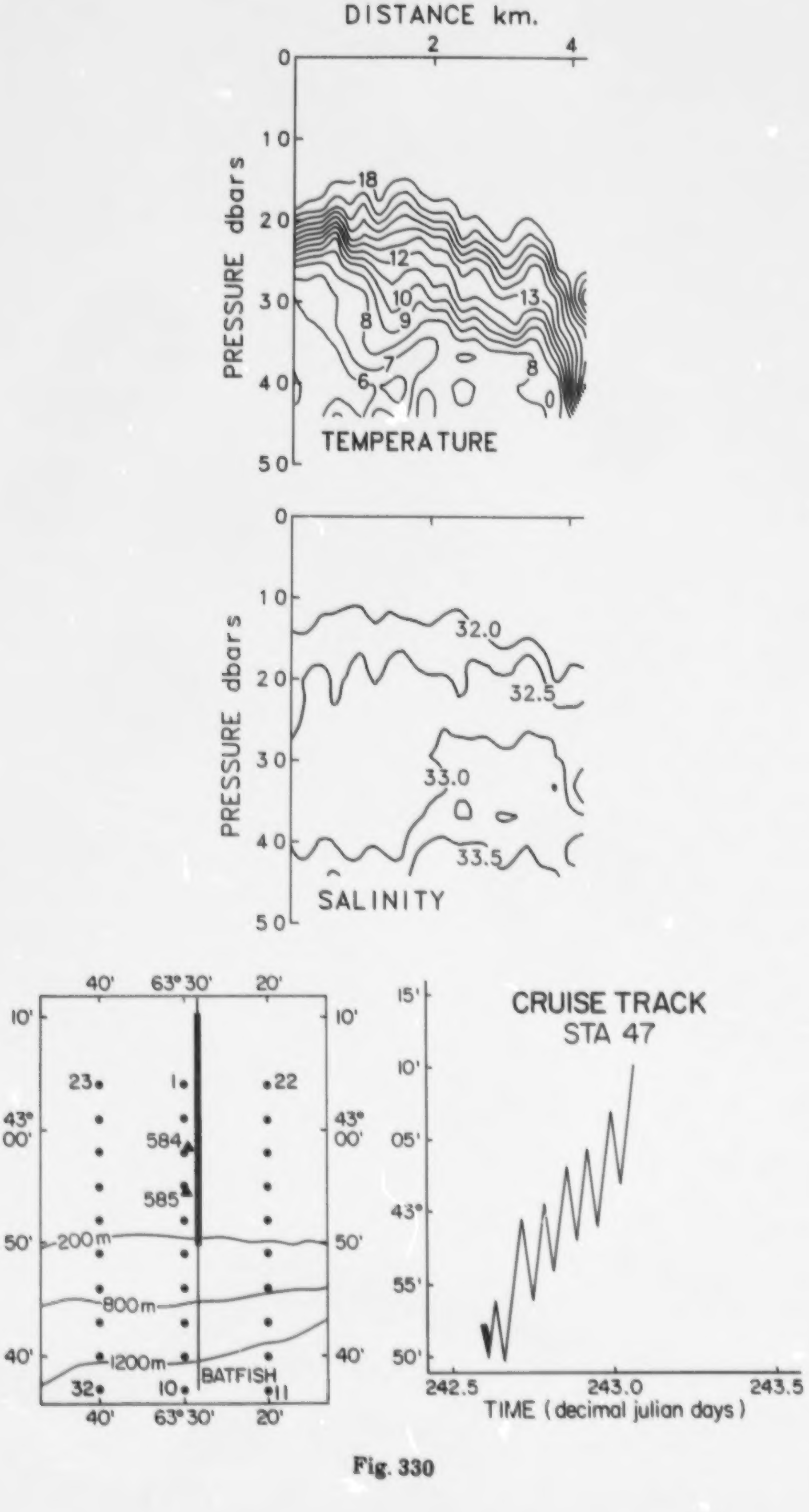

DISTANCE km.
0
2
4
10
20
30
40
50
PRESSURE dbars
18
12
10
13
8
9
7
8
6
0
TEMPERATURE
0
10
20
30
40
50
PRESSURE dbars
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
23
1
22
43°
00'
584
585
50'
200m
800m
40'
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 47
15'
10'
05'
43°
55'
50'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 330

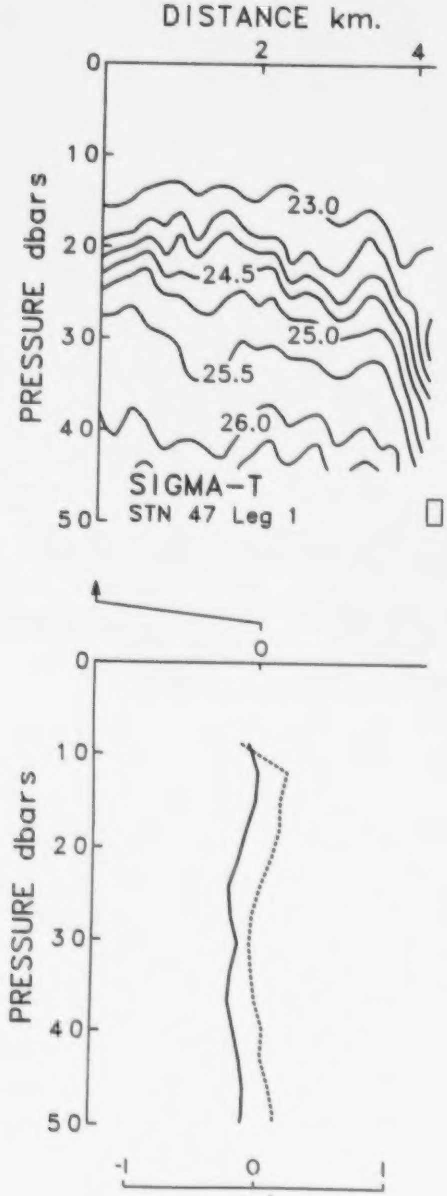

DISTANCE km.
0
2
4
PRESSURE dbars
10
20
30
40
50
23.0
24.5
25.0
25.5
26.0
SIGMA-T
STN 47 Leg 1
0
0
PRESSURE dbars
10
20
30
40
50
-1
0
1
ms-1

Fig. 331

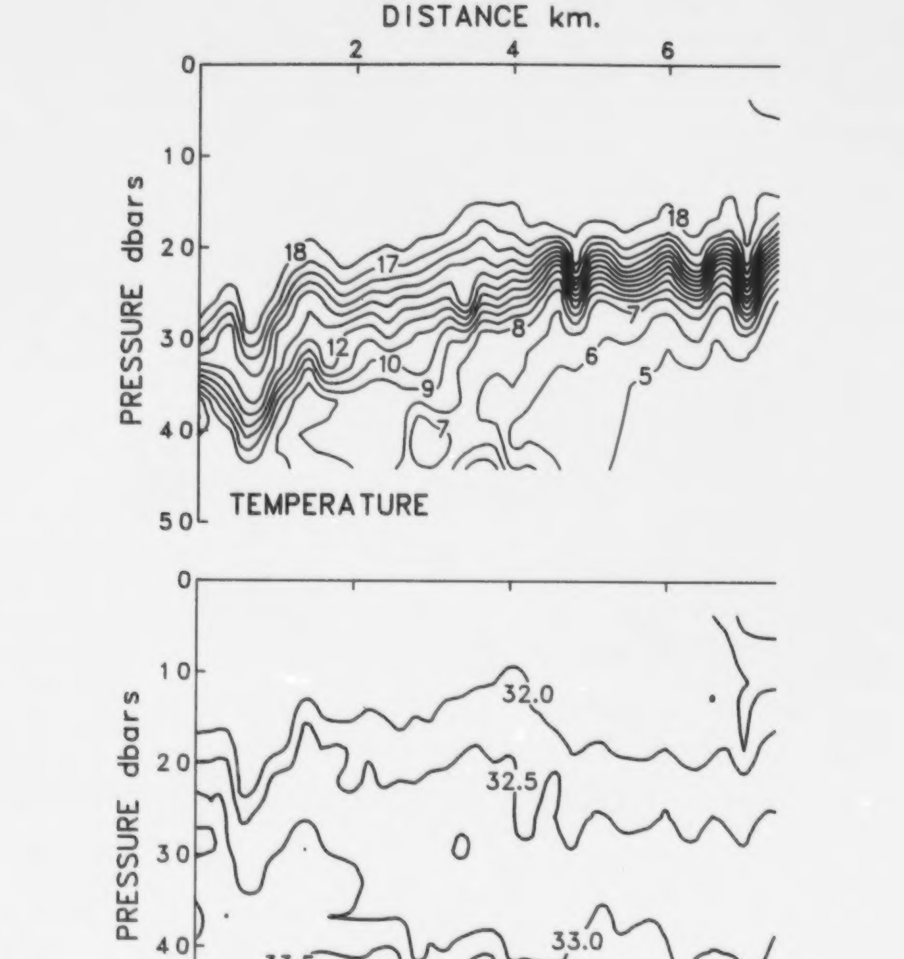

DISTANCE km.
2
4
6
0
10
20
30
40
50
PRESSURE dbars
18
17
18
12
10
9
8
7
7
6
5
TEMPERATURE
PRESSURE dbars
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 47
15'
10'
05'
43°
55'
50'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 332

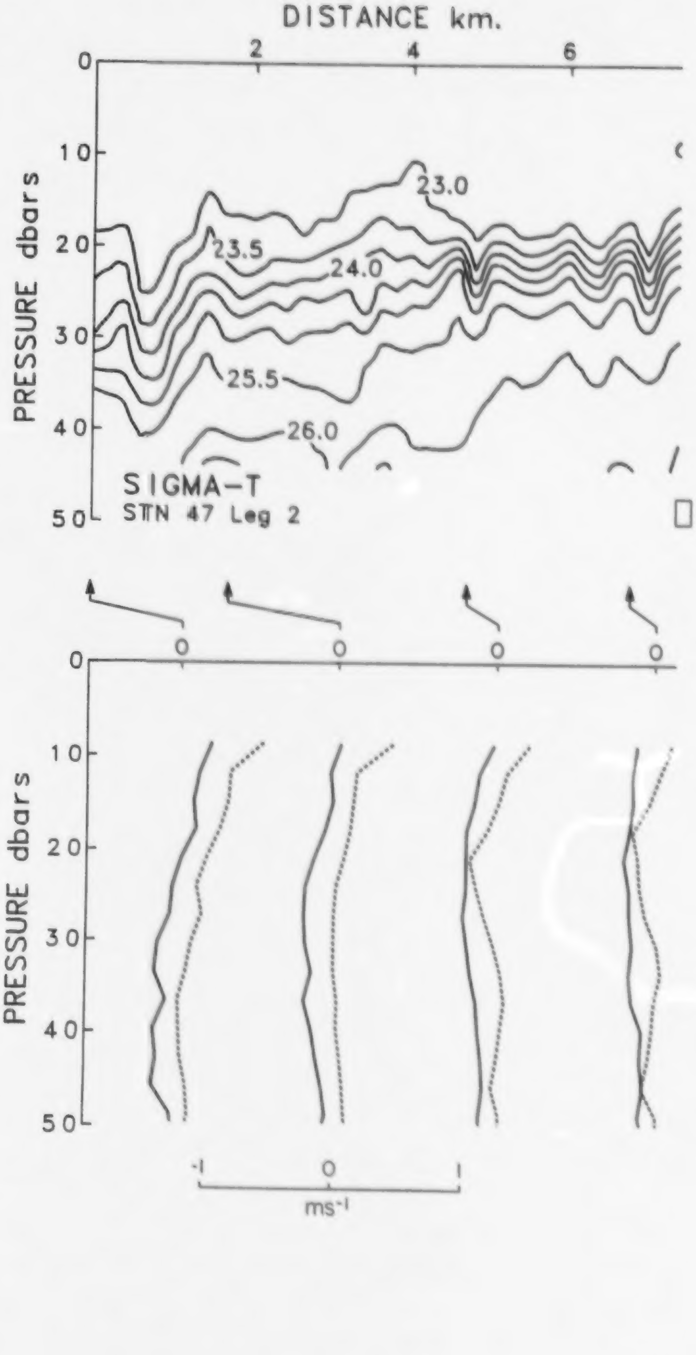

DISTANCE km.
2
4
6
0
10
20
30
40
50
PRESSURE dbars
23.0
23.5
24.0
25.5
26.0
SIGMA-T
STN 47 Leg 2
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1

Fig. 333

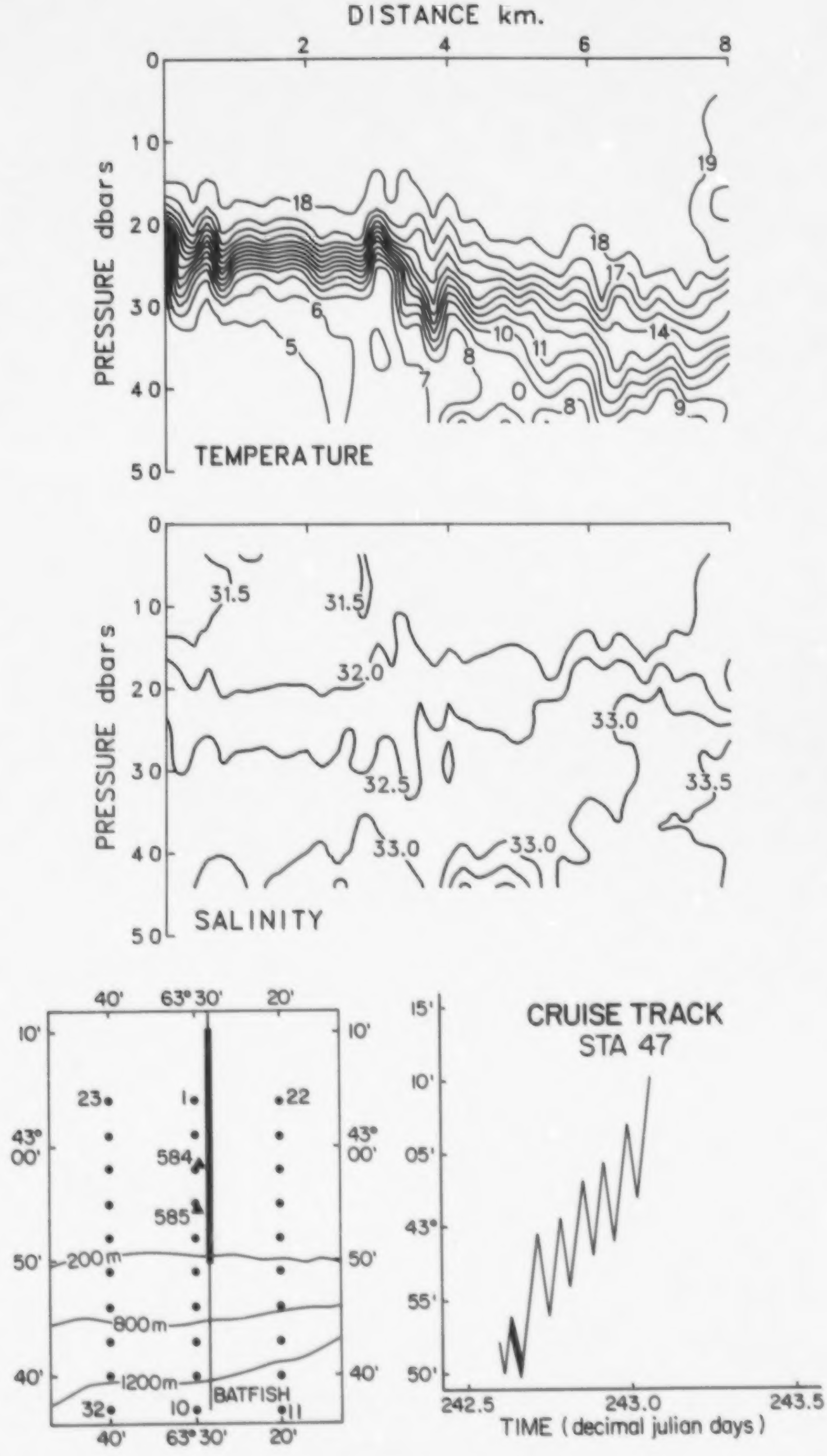

DISTANCE km.
0
2
4
6
8
PRESSURE dbars
10
20
30
40
50
18
19
17
14
11
10
9
8
7
6
5
TEMPERATURE
PRESSURE dbars
31.5
32.0
32.5
33.0
33.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
05'
43°
55'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 334

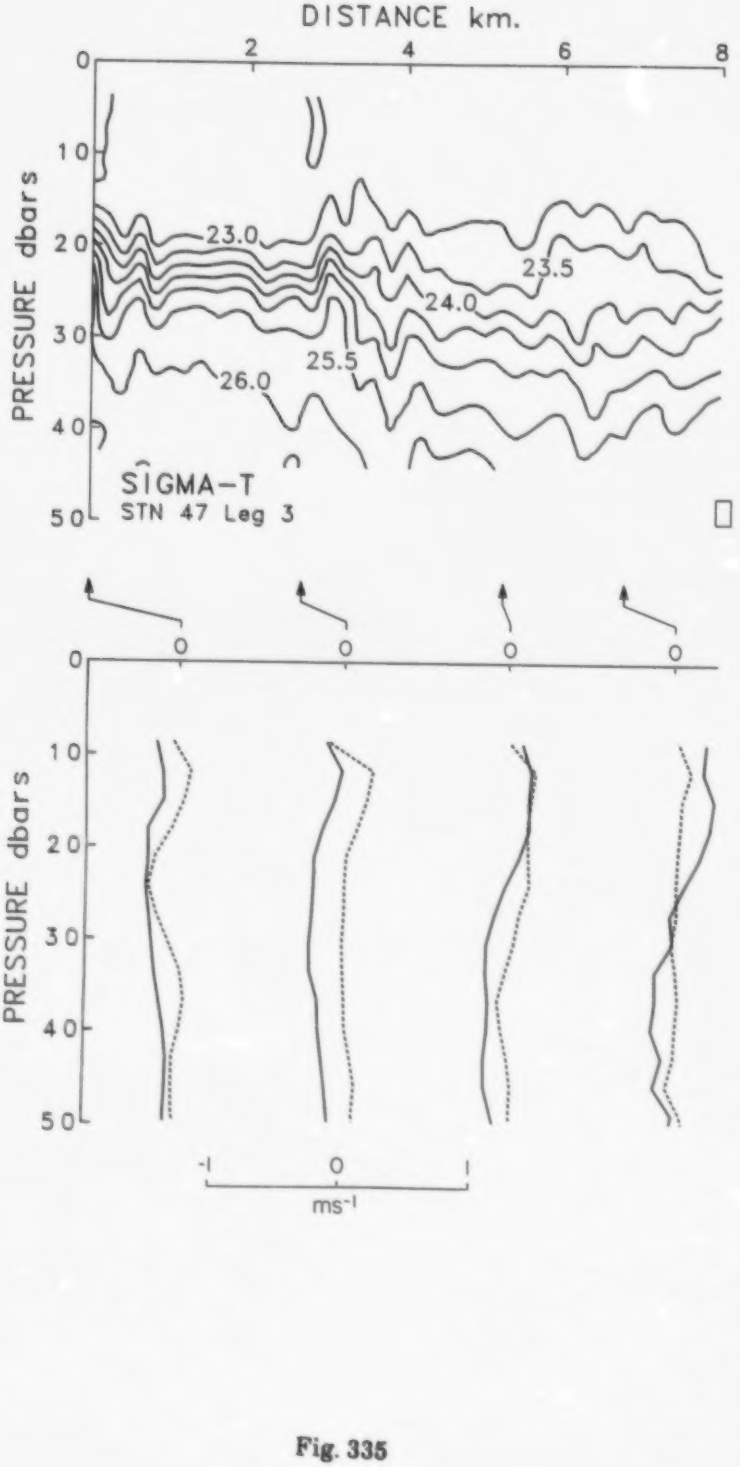

DISTANCE km.
0
2
4
6
8
PRESSURE dbars
10
20
30
40
50
23.0
23.5
24.0
25.5
26.0
SIGMA-T
STN 47 Leg 3
0
PRESSURE dbars
10
20
30
40
50
-1
0
1
ms-1

Fig. 335

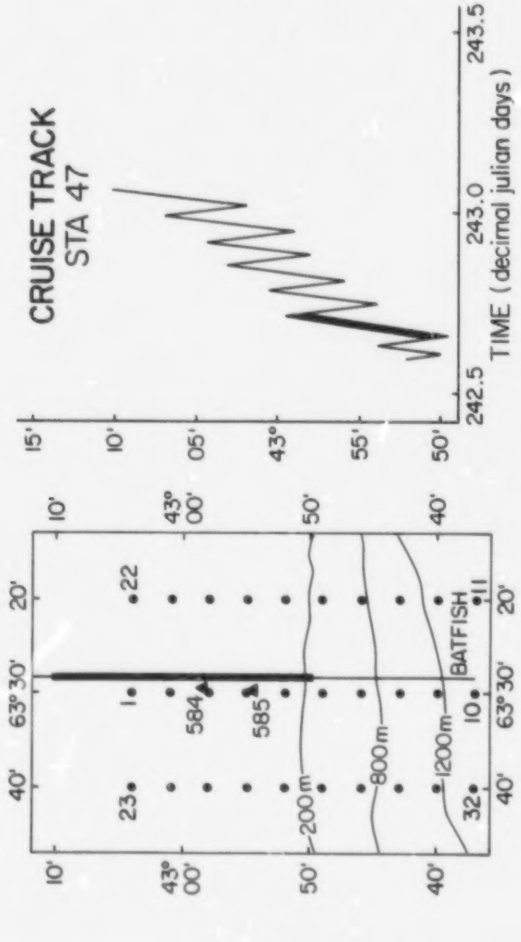

CRUISE TRACK
STA 47
TIME (decimal julian days)
242.5
243.0
243.5
15'
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
40'
63°30'
20'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH

Fig. 336

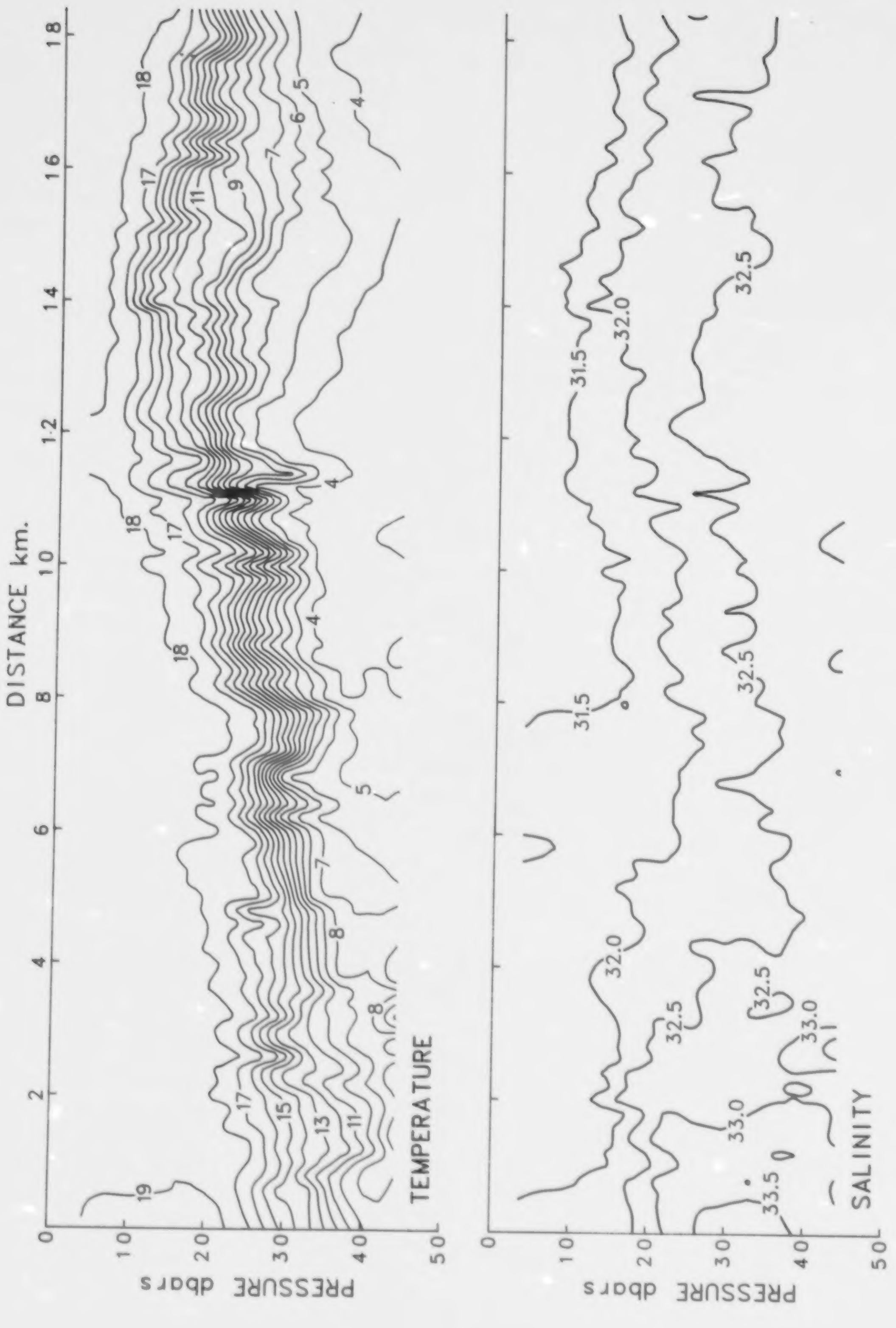

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
19
18
17
15
13
11
9
8
7
6
5
4
SALINITY
31.5
32.0
32.5
33.0
33.5

Fig. 337

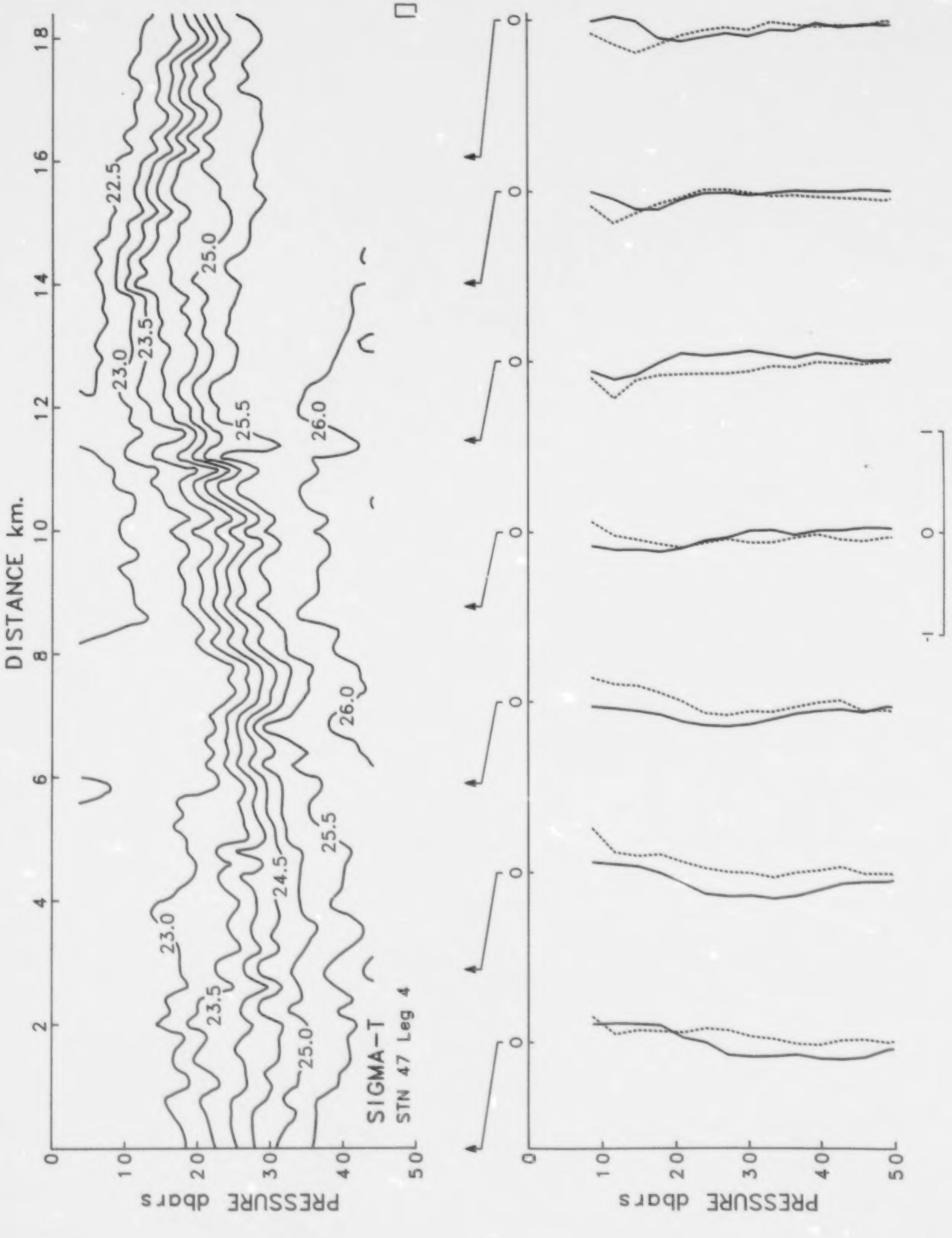

DISTANCE km.
0
2
4
6
8
10
12
14
16
18
PRESSURE dbars
0
10
20
30
40
50
22.5
23.0
23.5
24.5
25.0
25.5
26.0
SIGMA-T
STN 47 Leg 4
-1
0
1

Fig. 338

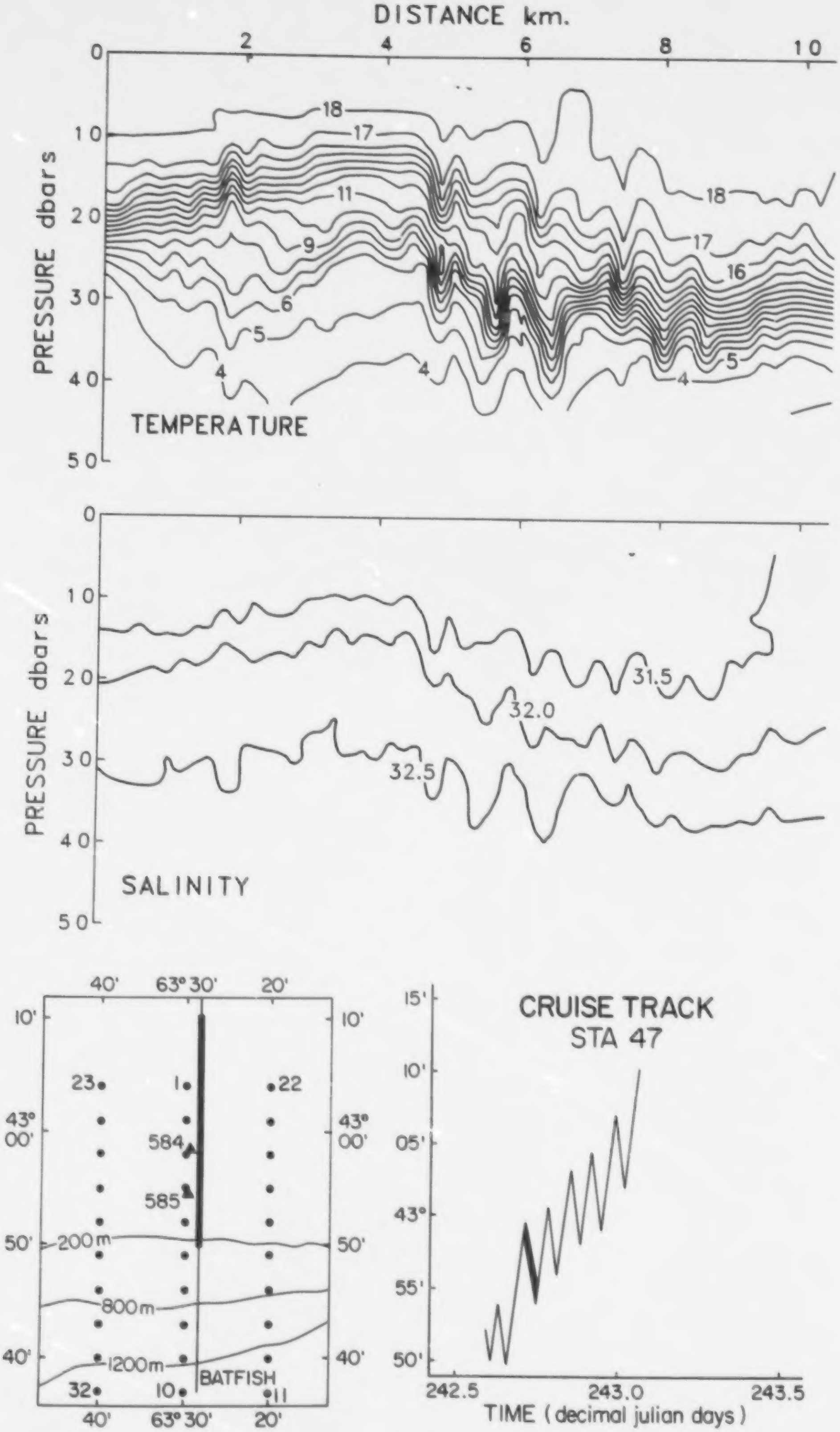

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
18
17
11
9
6
5
4
18
17
16
5
4
TEMPERATURE
PRESSURE dbars
0
10
20
30
40
50
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
10'
05'
43°
55'
50'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 339

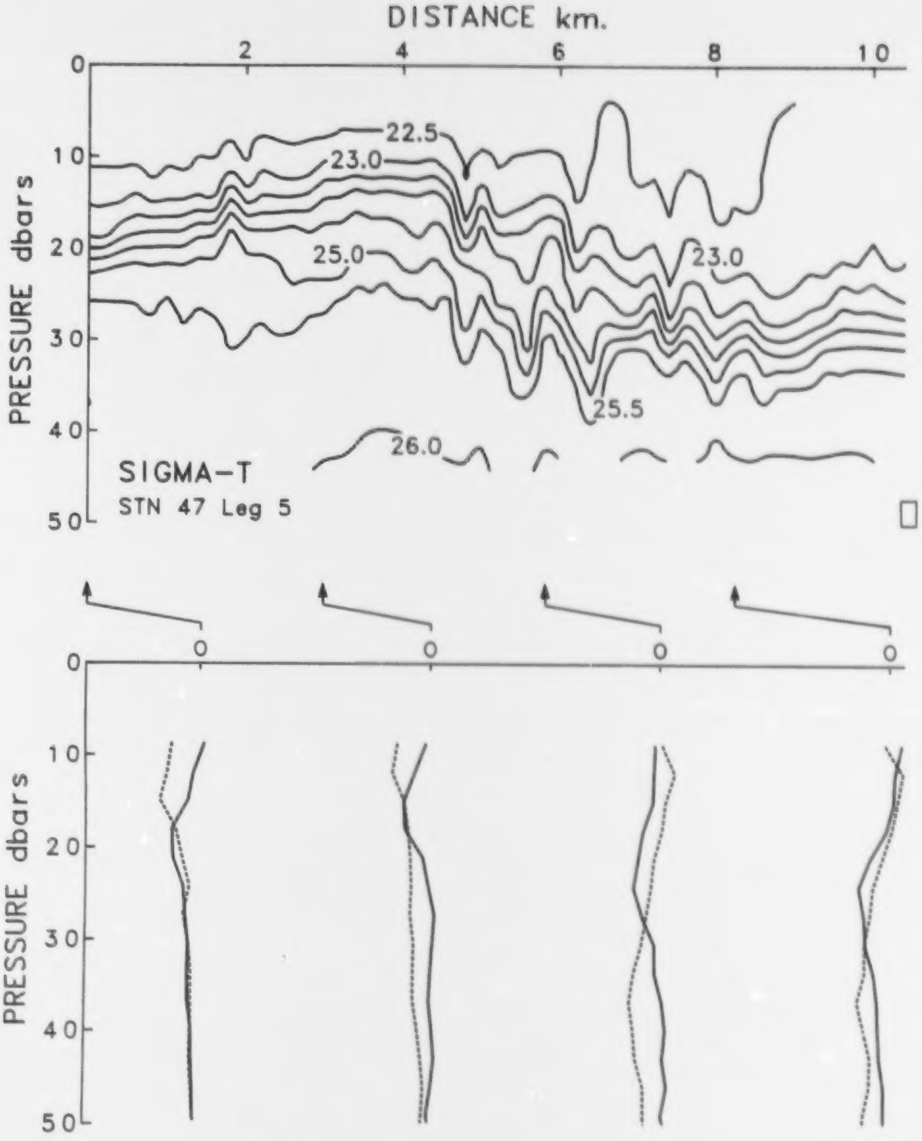

DISTANCE km.
0
2
4
6
8
10
10
20
30
40
50
PRESSURE dbars
22.5
23.0
25.0
23.0
25.5
26.0
SIGMA-T
STN 47 Leg 5
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1

Fig. 340

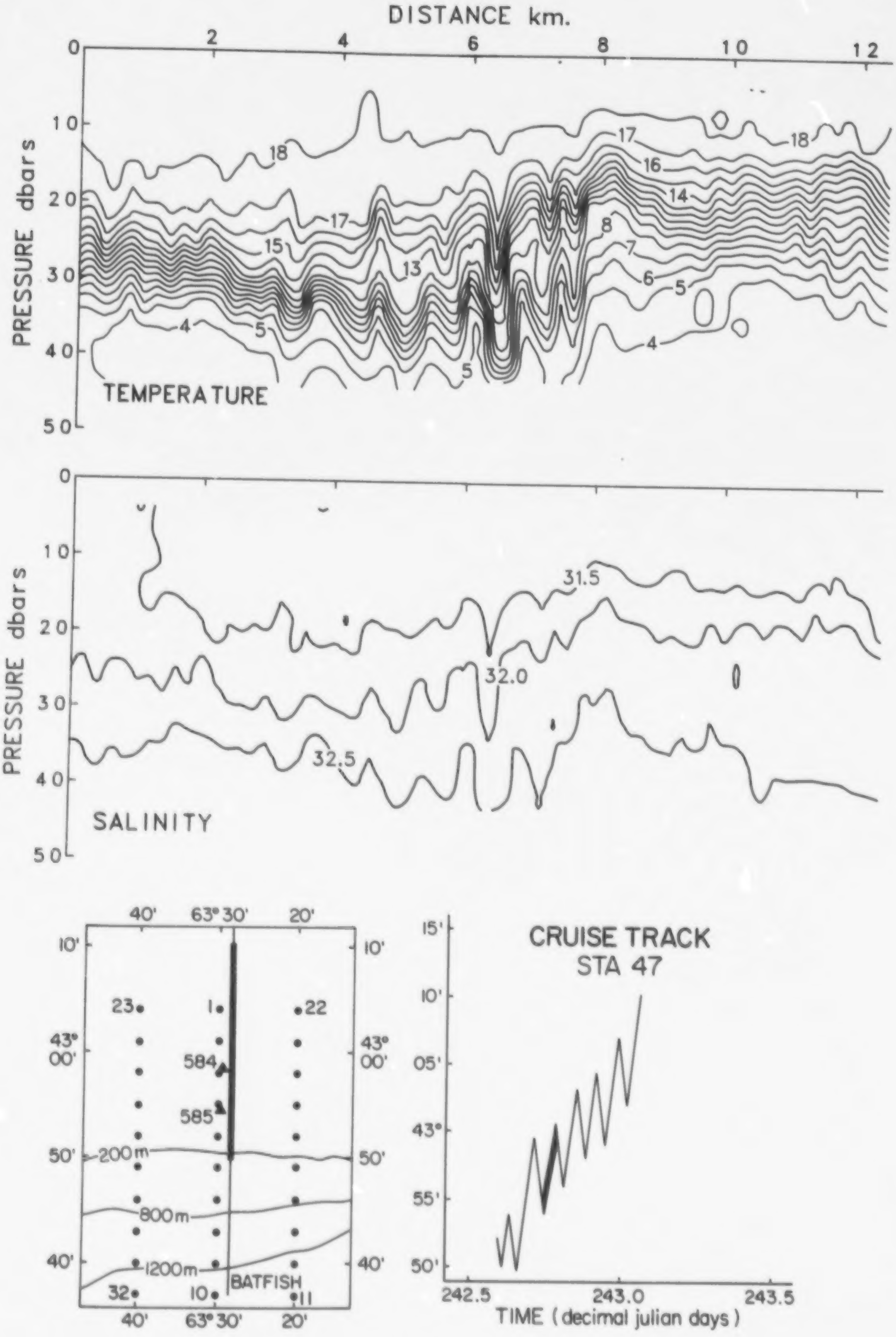

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
10
20
30
40
50
18
17
16
15
14
13
8
7
6
5
4
TEMPERATURE
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
05'
43°
55'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 341

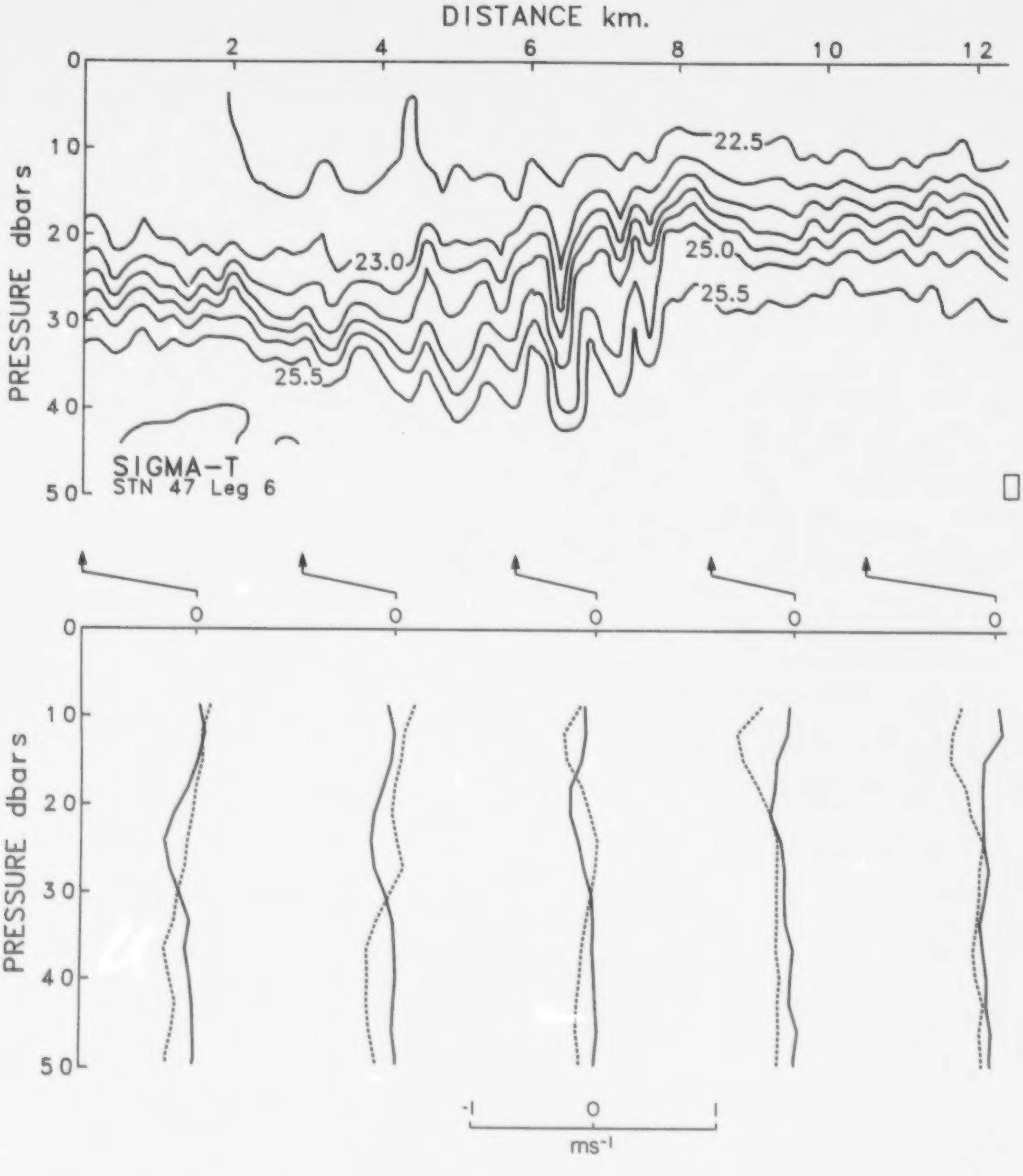

DISTANCE km.
2
4
6
8
10
12
0
10
20
30
40
50
PRESSURE dbars
22.5
23.0
25.0
25.5
25.5
SIGMA-T
STN 47 Leg 6
0
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1

Fig. 342

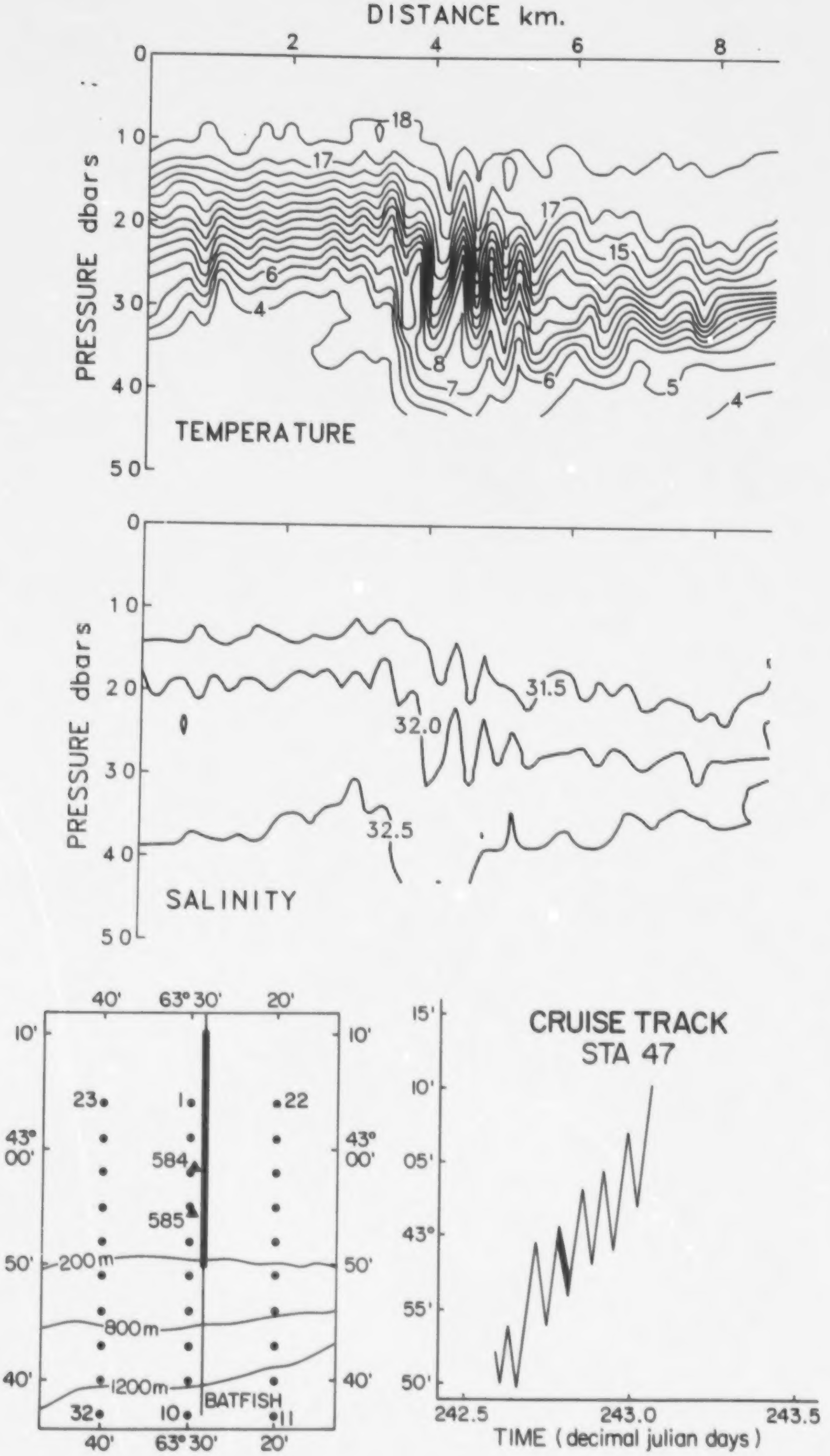

DISTANCE km.
0
2
4
6
8
10
20
30
40
50
PRESSURE dbars
18
17
17
15
6
4
8
7
6
5
4
TEMPERATURE
0
10
20
30
40
50
PRESSURE dbars
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
23
1
22
43°
00'
584
585
50'
200m
800m
1200m
40'
32
10
11
BATFISH
CRUISE TRACK
STA 47
15'
10'
05'
43°
55'
50'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 343

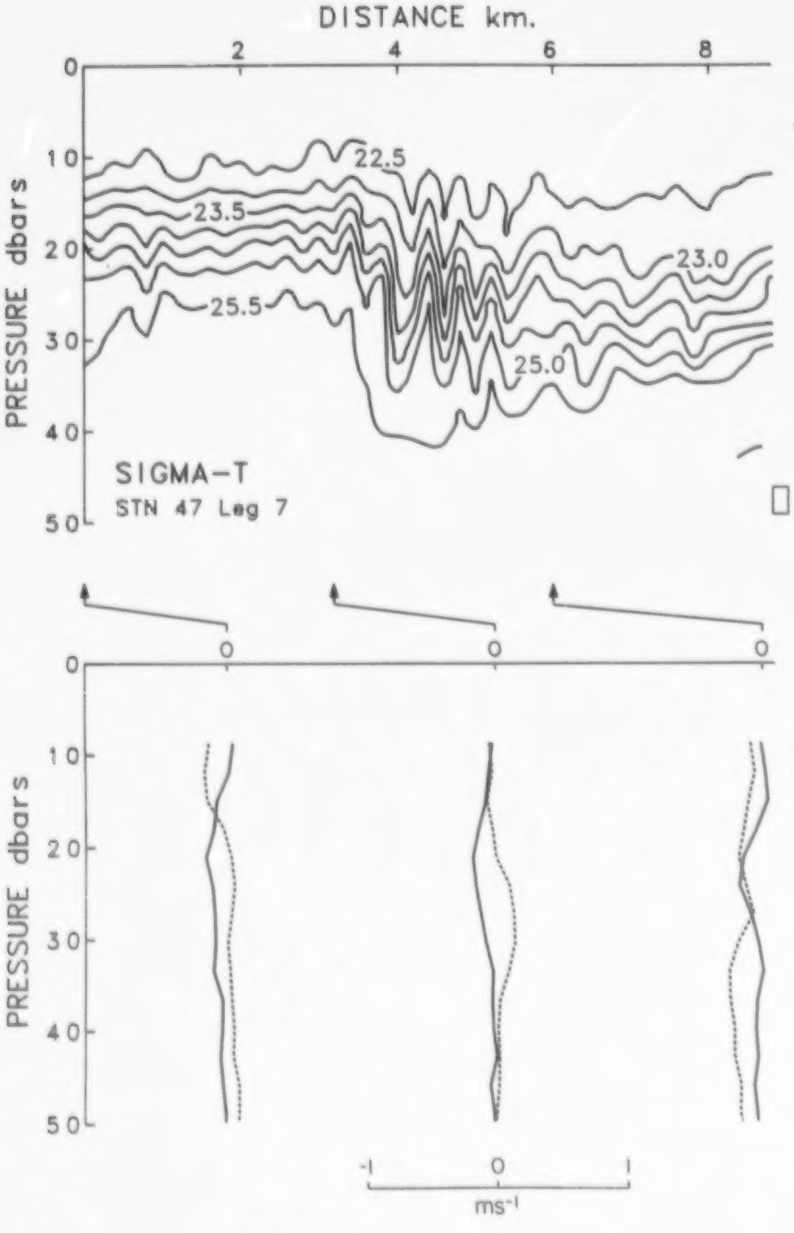

DISTANCE km.
2
4
6
8
0
10
20
30
40
50
PRESSURE dbars
22.5
23.5
25.5
23.0
25.0
SIGMA-T
STN 47 Leg 7
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1

Fig. 344

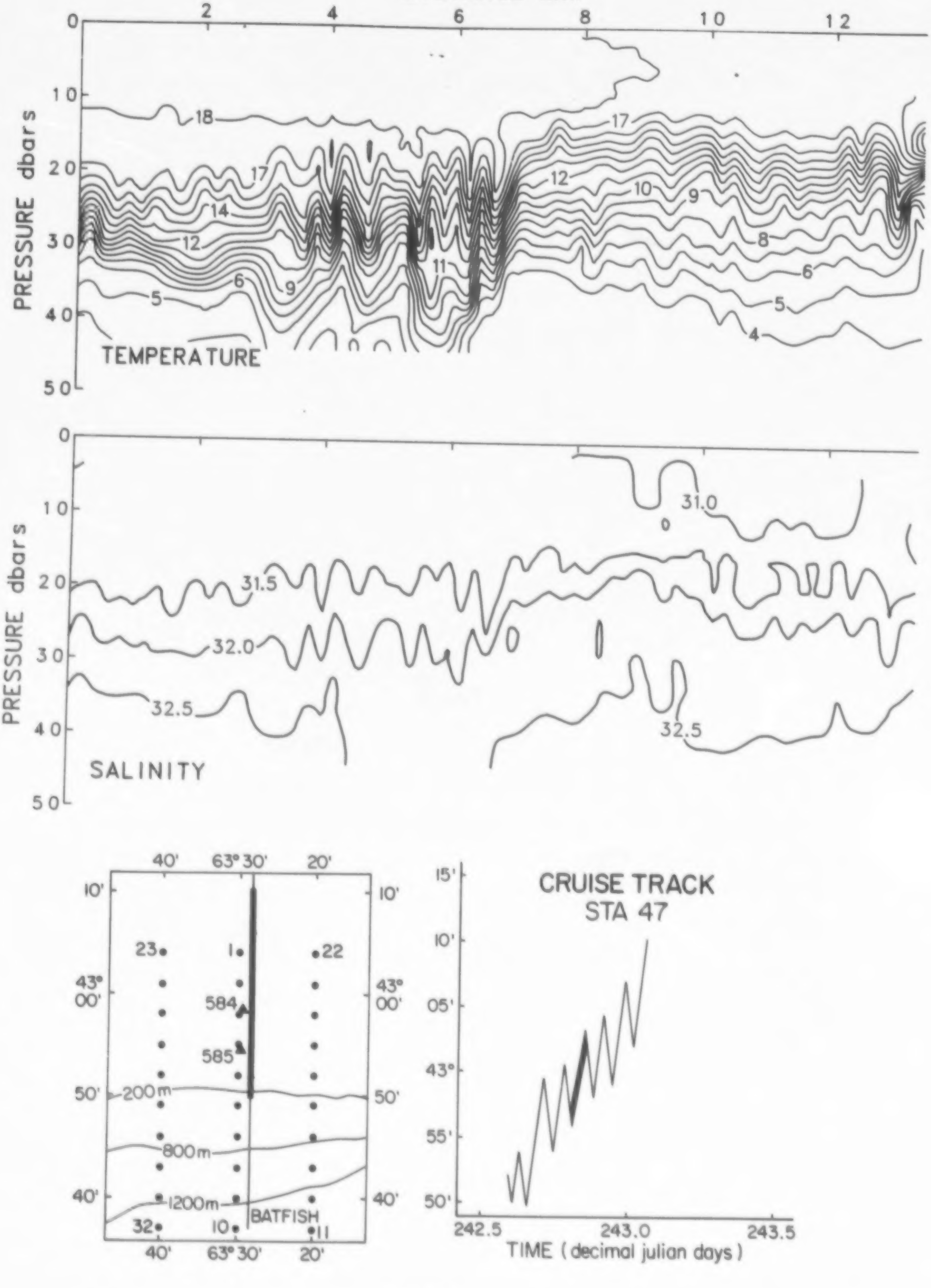

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
10
20
30
40
50
18
17
14
12
9
6
5
11
10
9
8
6
5
4
TEMPERATURE
PRESSURE dbars
0
10
20
30
40
50
31.0
31.5
32.0
32.5
32.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
32
10
11
BATFISH
CRUISE TRACK
STA 47
15'
10'
05'
43°
55'
50'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 345

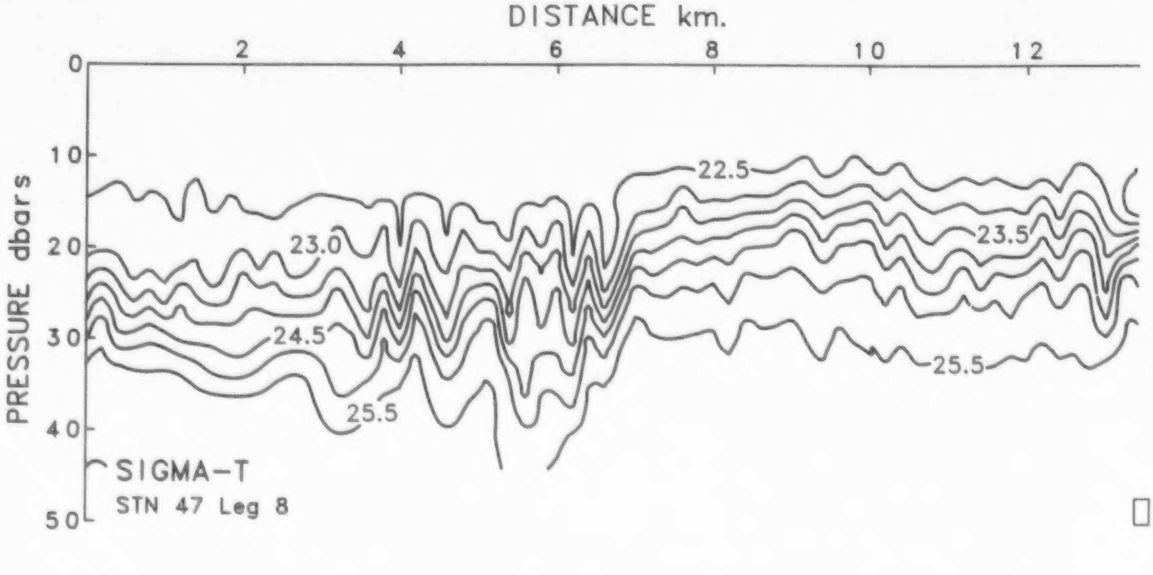

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
10
20
30
40
50
22.5
23.0
23.5
24.5
25.5
25.5
SIGMA-T
STN 47 Leg 8
0
PRESSURE dbars
10
20
30
40
50
-1
0
1
ms-1

Fig. 346

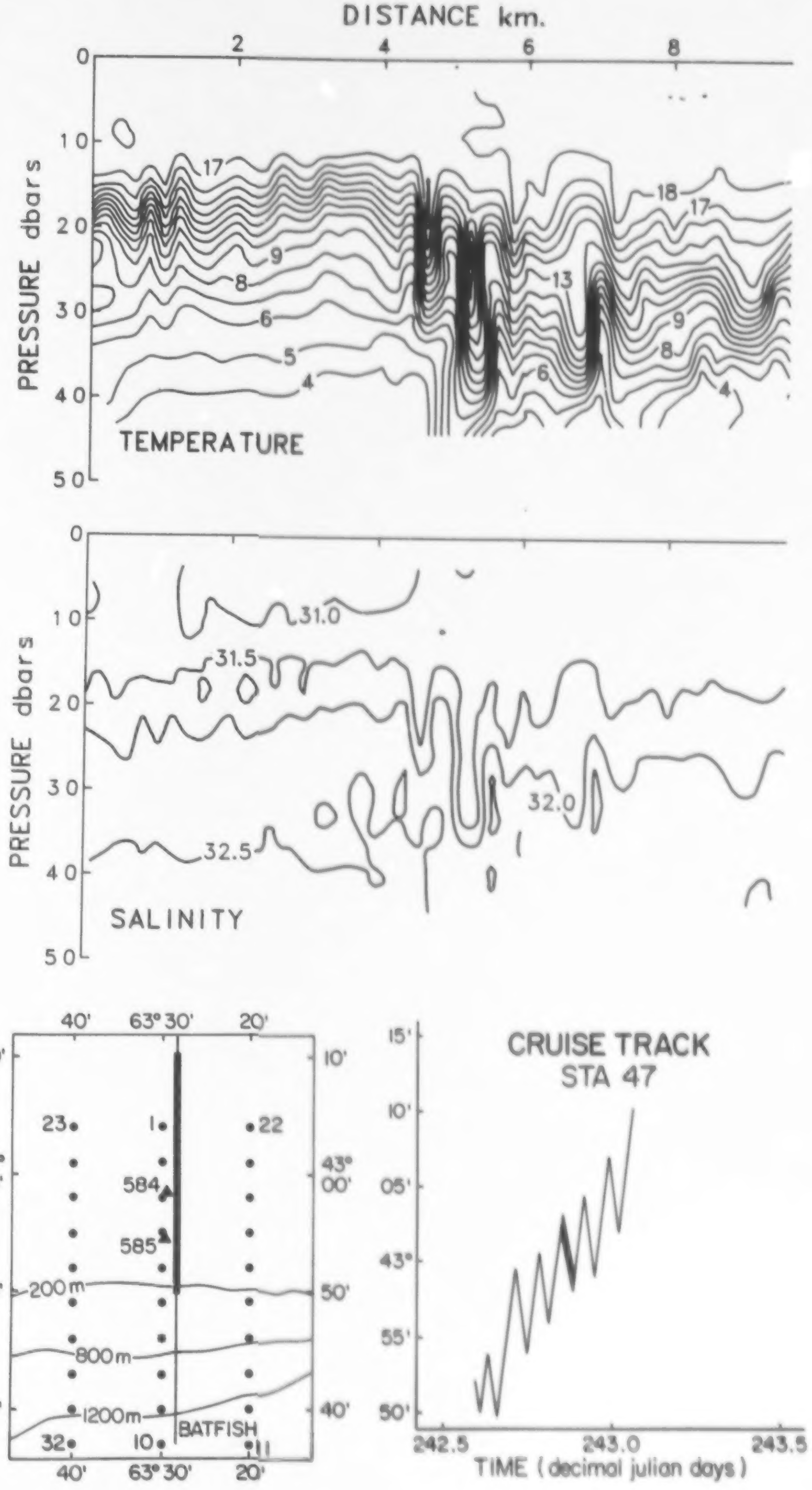

DISTANCE km.
2
4
6
8
0
10
20
30
40
50
PRESSURE dbars
17
18
9
8
6
5
4
13
TEMPERATURE
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
05'
55'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 347

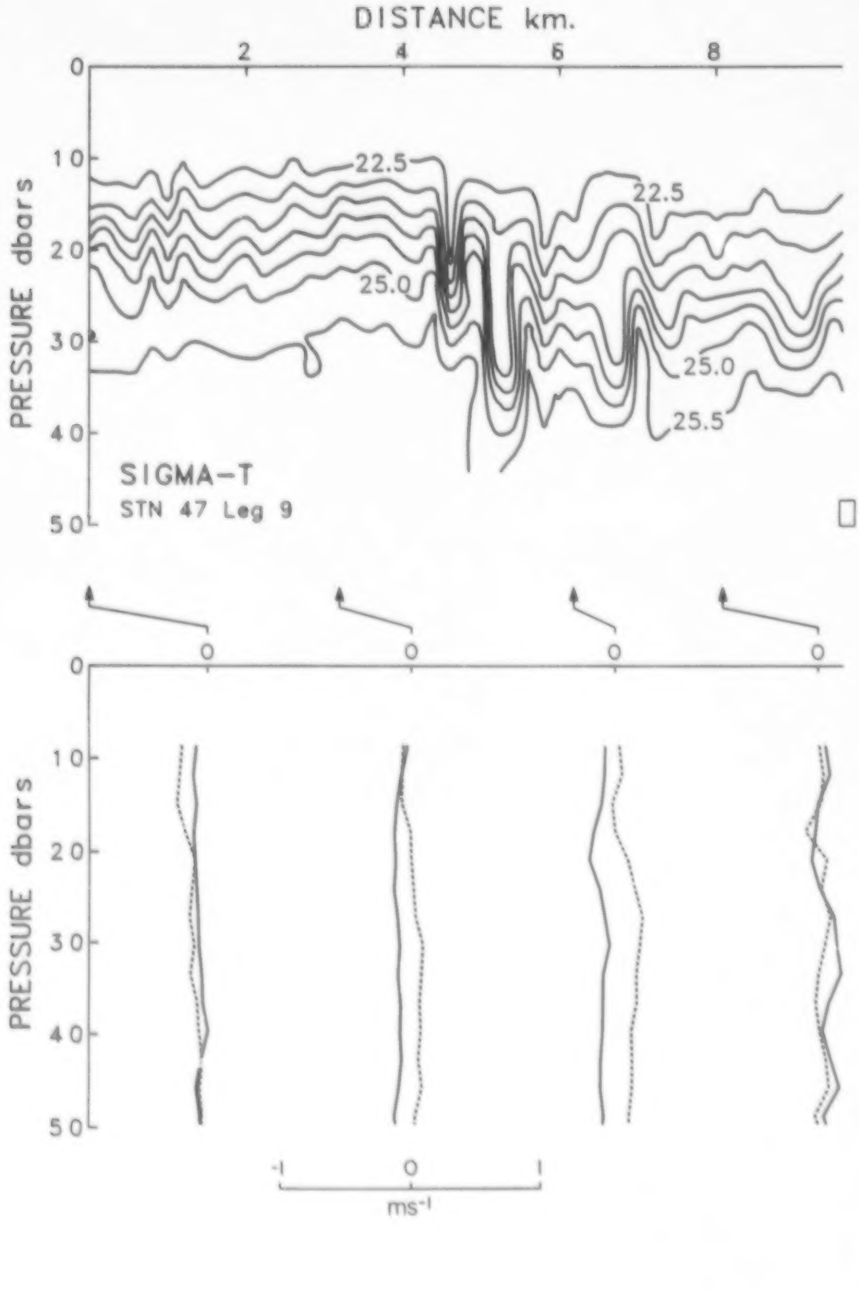

DISTANCE km.
0
2
4
6
8
10
20
30
40
50
PRESSURE dbars
22.5
22.5
25.0
25.0
25.5
SIGMA-T
STN 47 Leg 9
0
0
0
0
0
10
20
30
40
50
PRESSURE dbars
-1
0
1
ms-1

Fig. 348

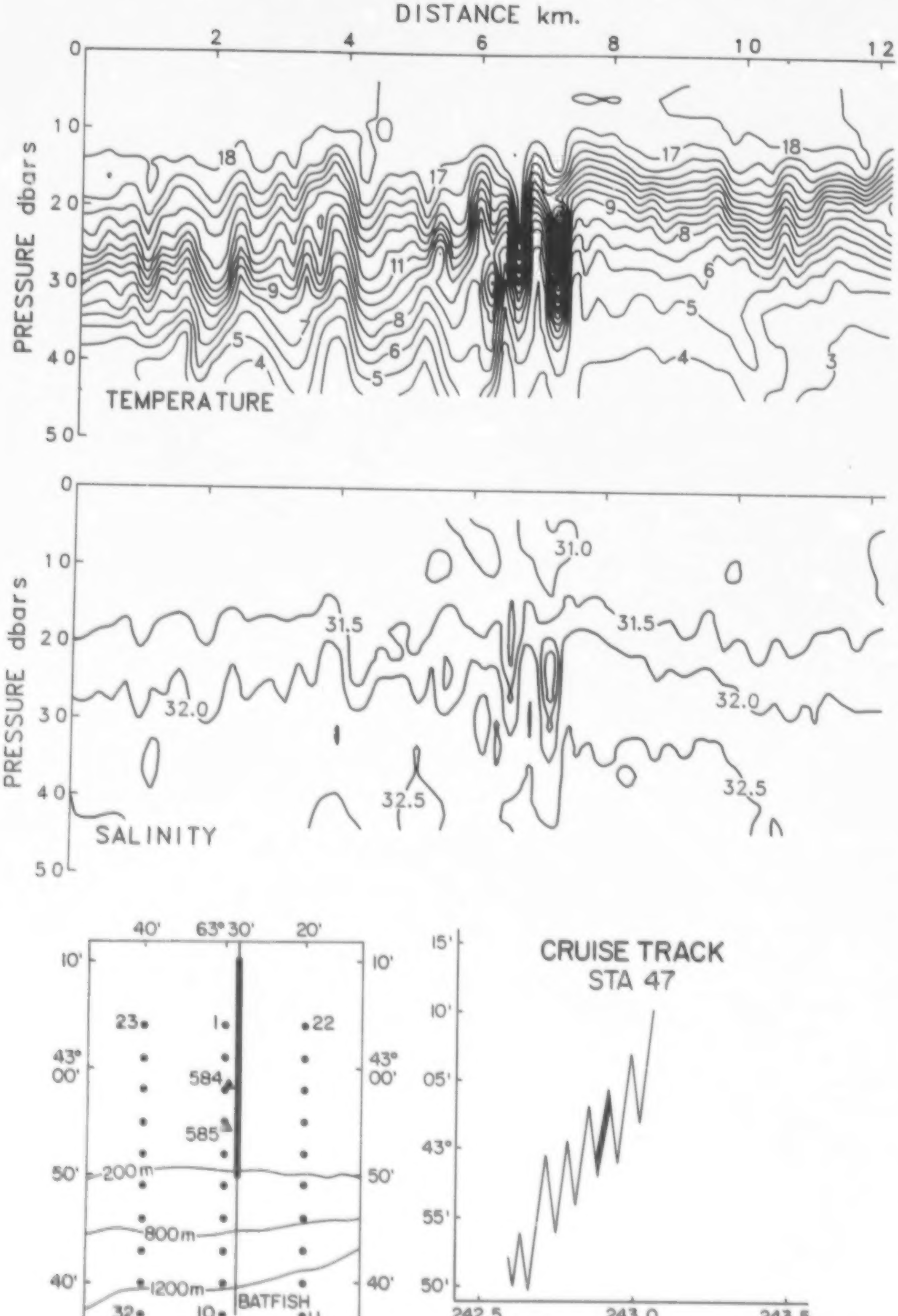

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
10
20
30
40
50
18
17
18
17
11
9
8
6
5
4
9
8
6
5
4
3
TEMPERATURE
31.0
31.5
31.5
32.0
32.0
32.5
32.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
05'
43°
55'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 349

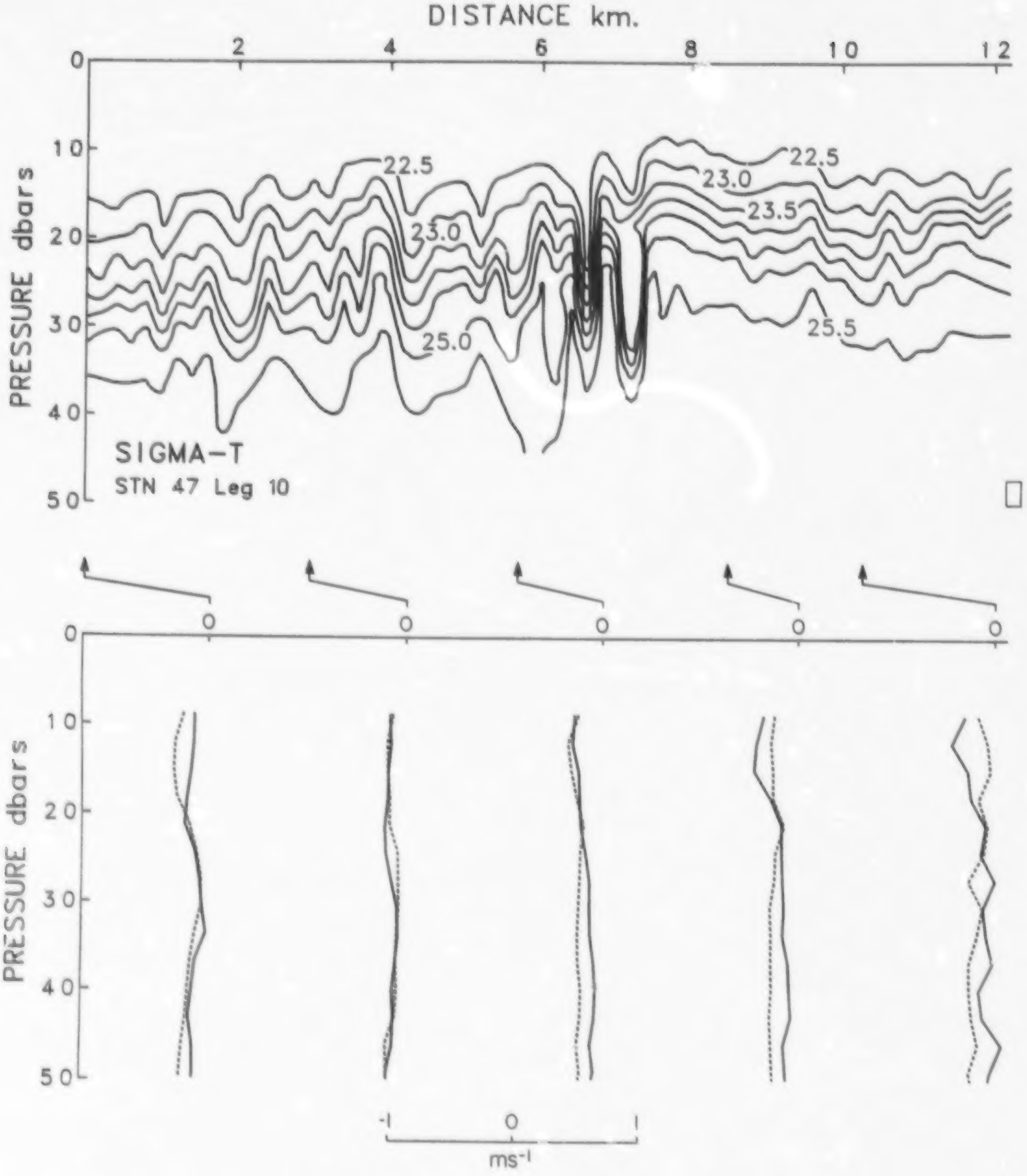

DISTANCE km.
0
2
4
6
8
10
12
PRESSURE dbars
10
20
30
40
50
22.5
23.0
25.0
23.5
25.5
SIGMA-T
STN 47 Leg 10
-1
0
1
ms-1

Fig. 350

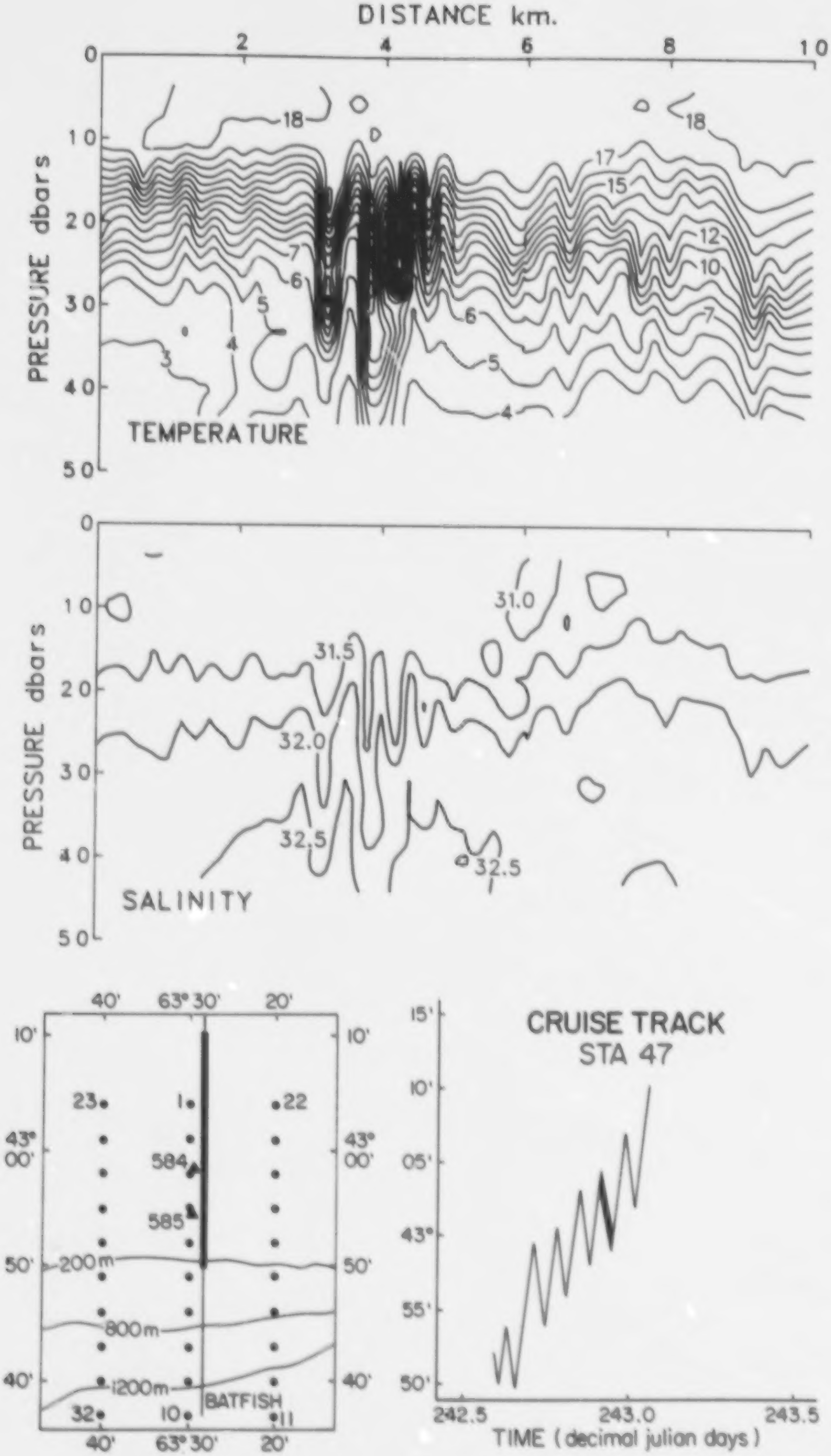

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
18
17
15
12
10
7
6
5
4
3
TEMPERATURE
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43° 00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
05'
43°
55'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 351

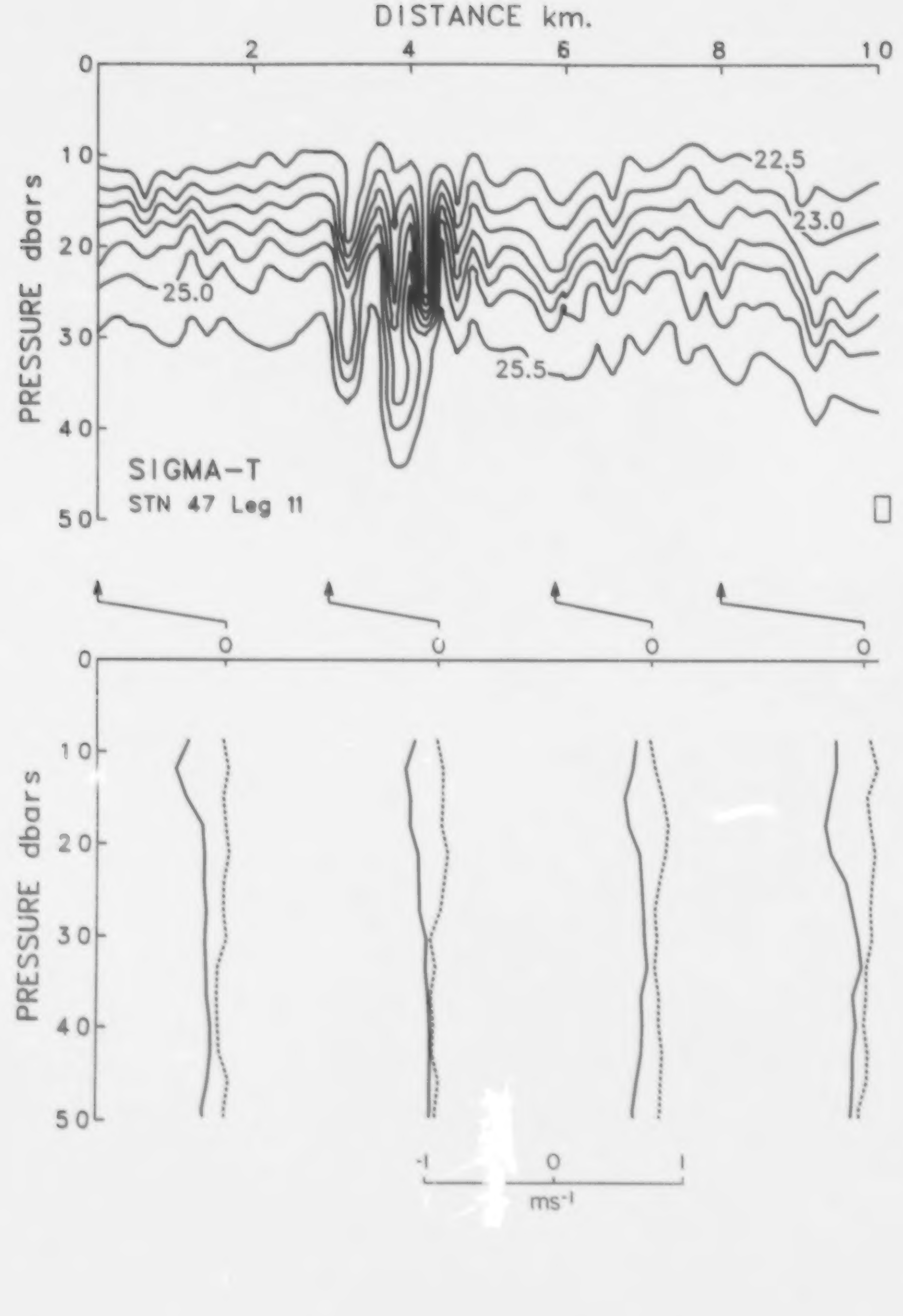

DISTANCE km.
0
2
4
6
8
10
PRESSURE dbars
10
20
30
40
50
22.5
23.0
25.0
25.5
SIGMA-T
STN 47 Leg 11
0
0
0
0
0
PRESSURE dbars
10
20
30
40
50
-1
0
1
ms-1

Fig. 352

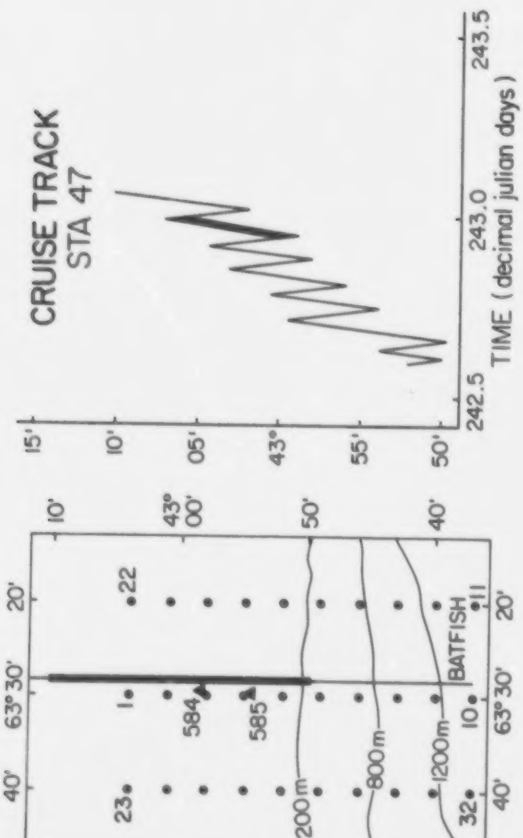

CRUISE TRACK
STA 47
TIME (decimal julian days)
242.5
243.0
243.5
15'
10'
05'
43°
55'
50'
10'
43° 00'
50'
40'
40'
63°30'
20'
22
1
23
584
585
200m
800m
1200m
BATFISH
10
11
32

Fig. 353

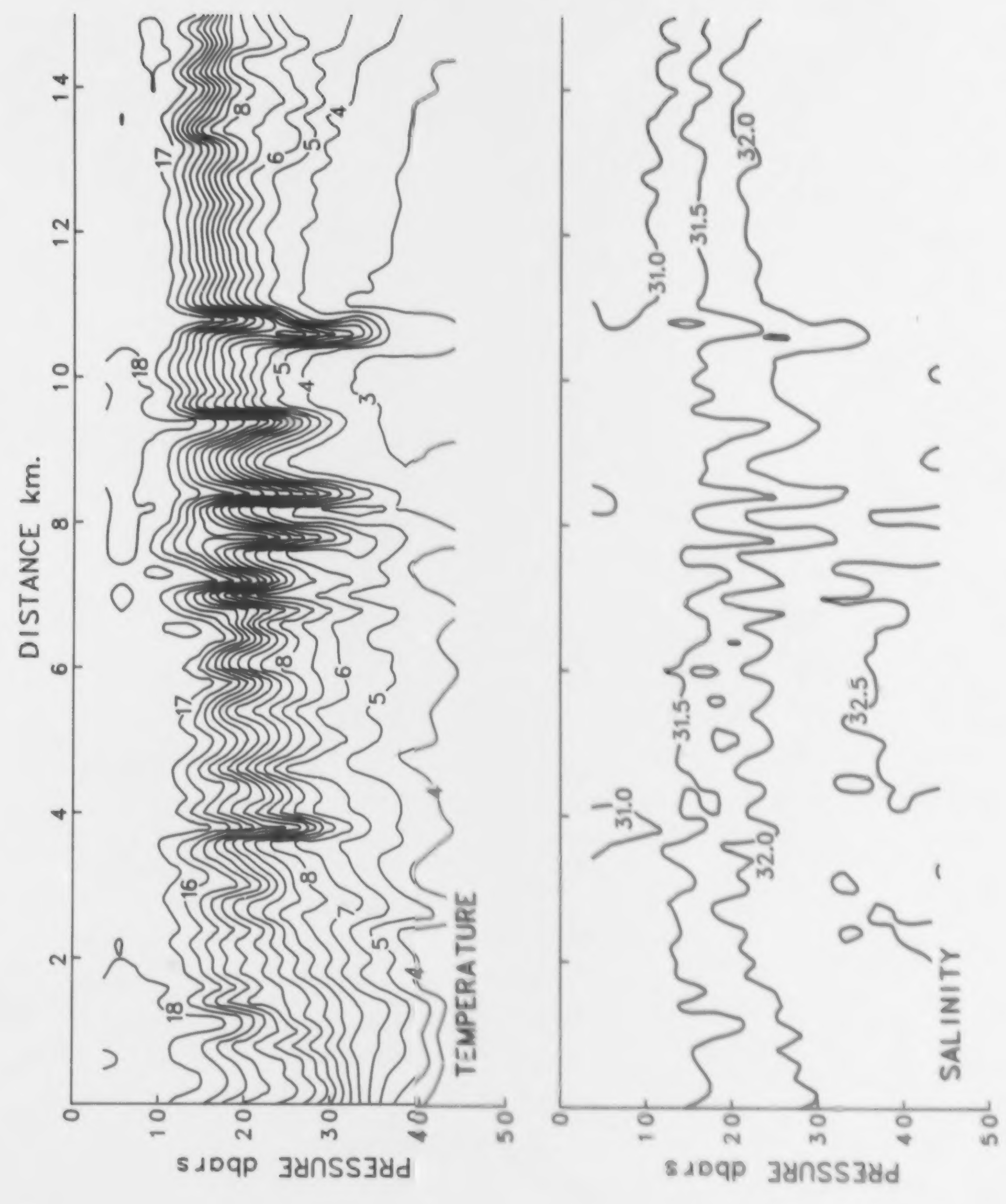

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
16
17
8
7
6
5
4
3
SALINITY
31.0
31.5
32.0
32.5

Fig. 354

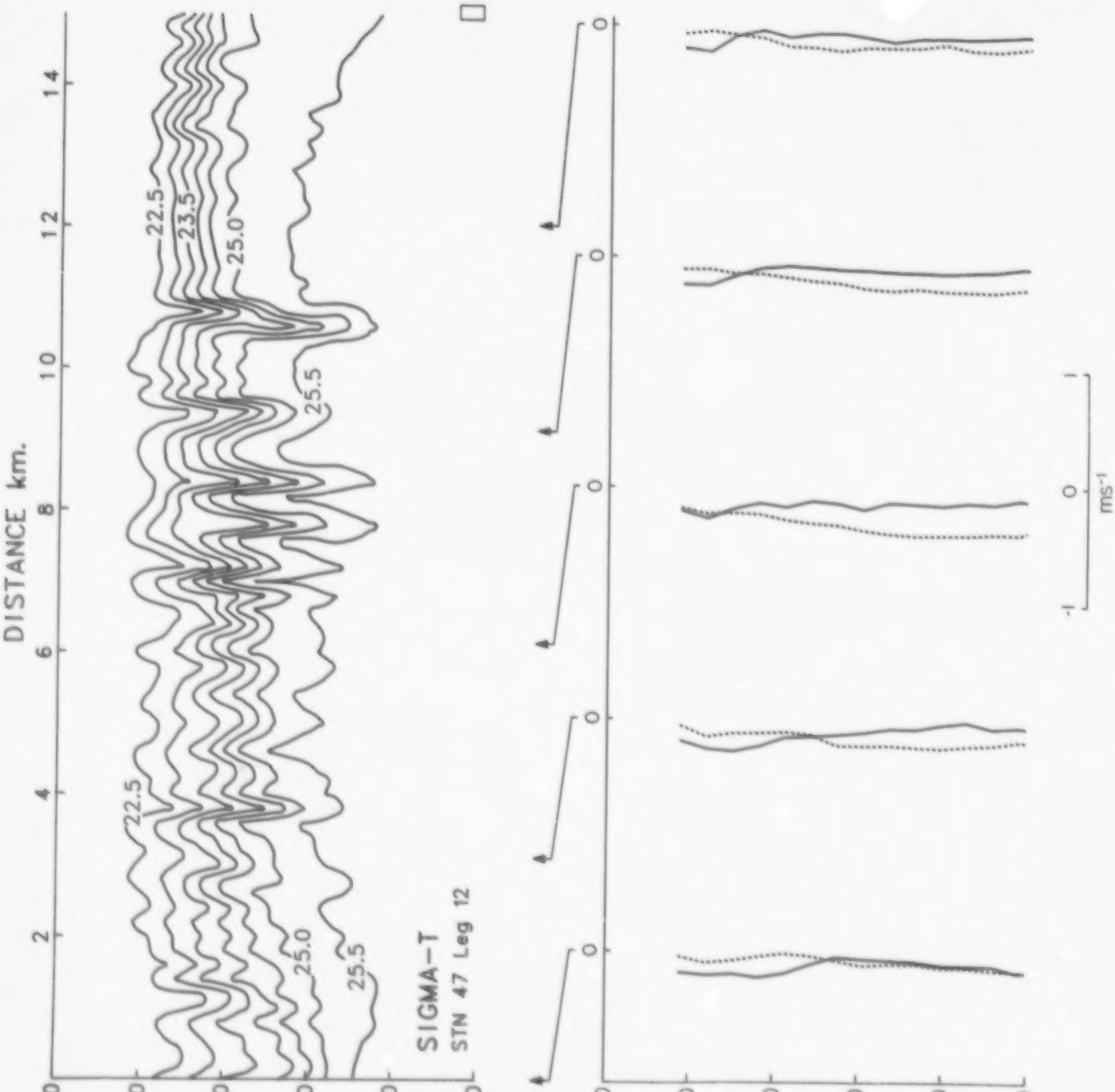

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
22.5
23.5
25.0
25.5
SIGMA-T
STN 47 Leg 12
0
-1
1
ms-1

Fig. 355

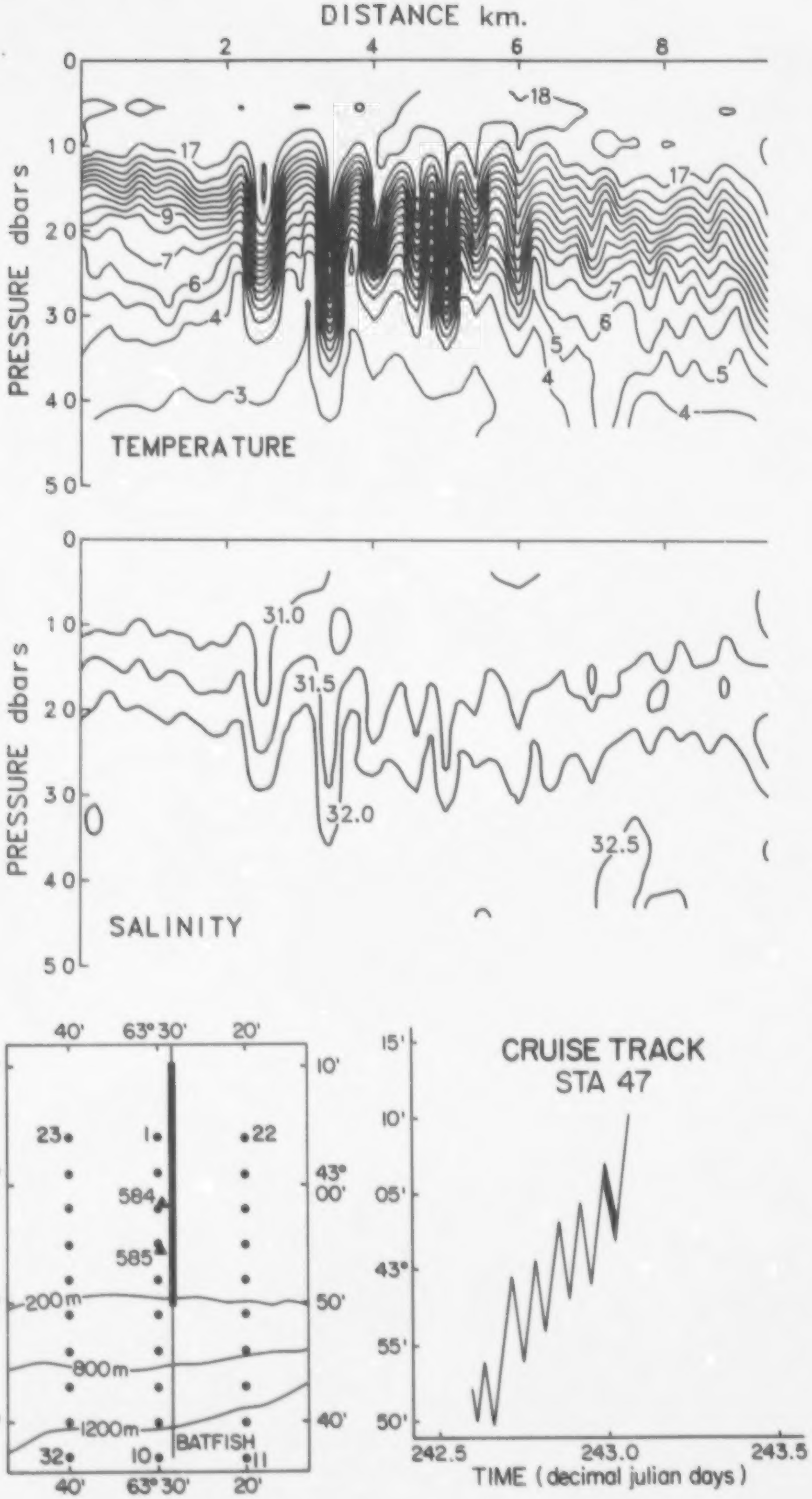

DISTANCE km.
0
2
4
6
8
PRESSURE dbars
10
20
30
40
50
17
18
9
7
6
4
3
5
TEMPERATURE
31.0
31.5
32.0
32.5
SALINITY
40'
63° 30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
05'
55'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 356

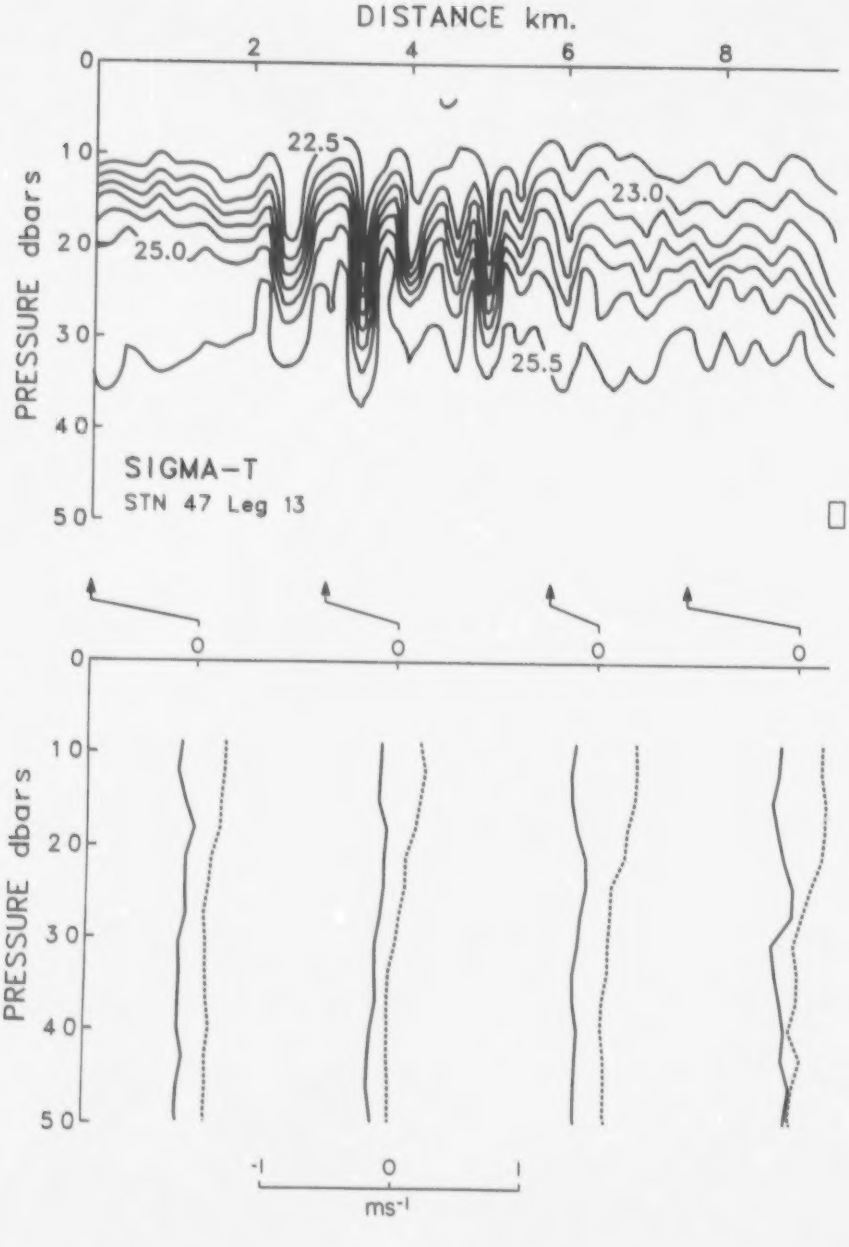

DISTANCE km.
0
2
4
6
8
PRESSURE dbars
10
20
30
40
50
22.5
23.0
25.0
25.5
SIGMA-T
STN 47 Leg 13
0
0
0
0
0
PRESSURE dbars
10
20
30
40
50
-1
0
1
ms-1

Fig. 357

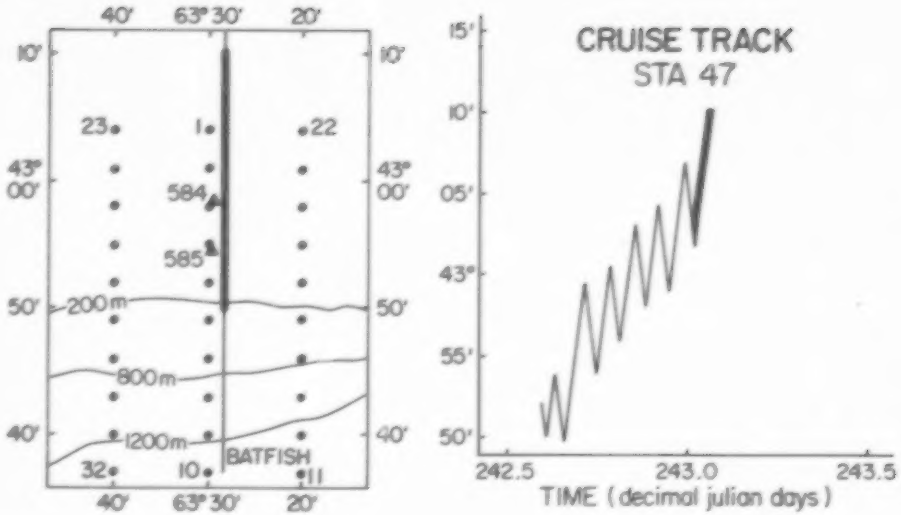

40'
63°30'
20'
10'
43°
00'
50'
40'
23
1
22
584
585
200m
800m
1200m
BATFISH
32
10
11
CRUISE TRACK
STA 47
15'
10'
05'
43°
55'
50'
242.5
243.0
243.5
TIME (decimal julian days)

Fig. 358

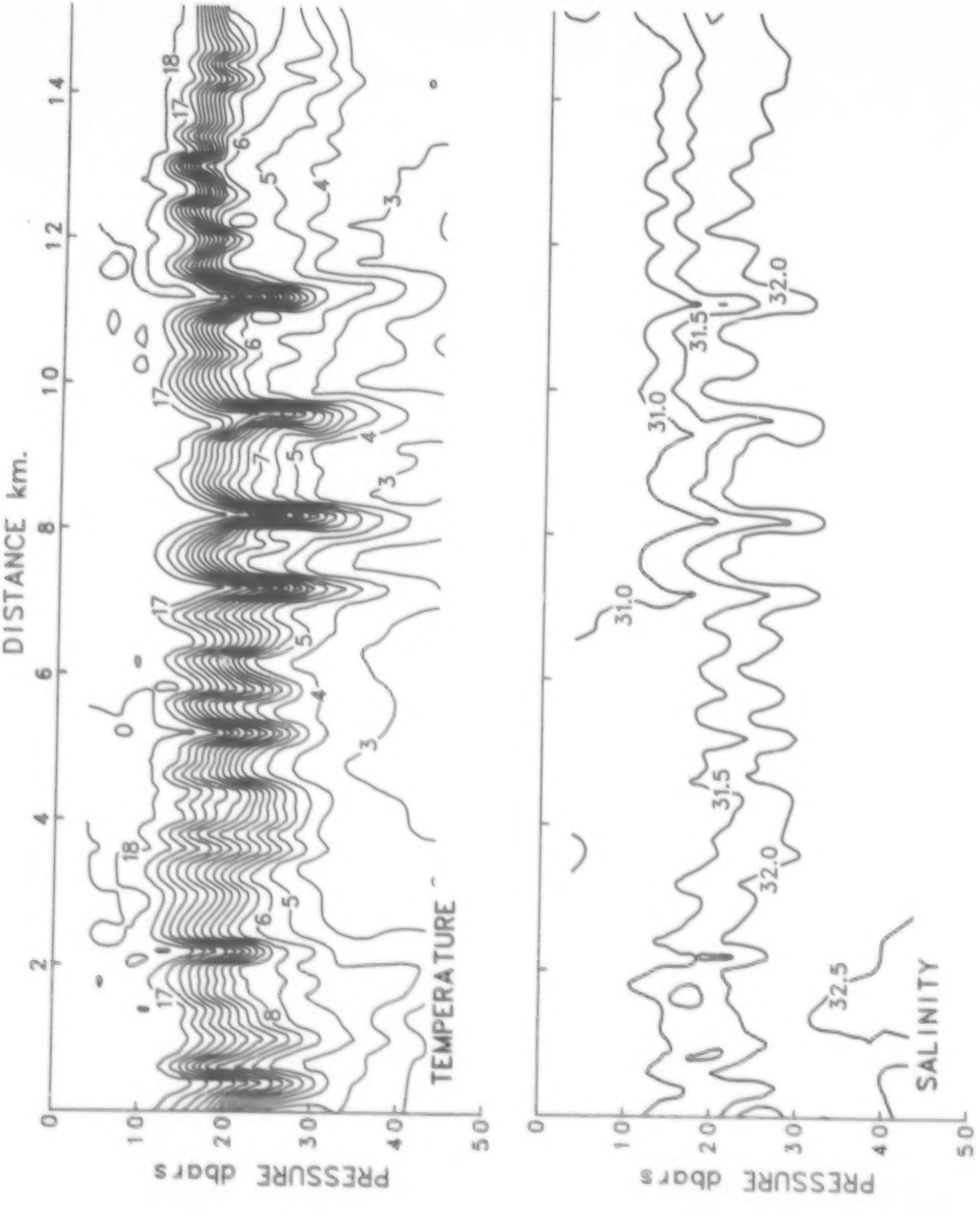

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
TEMPERATURE
18
17
8
7
6
5
4
3
SALINITY
31.0
31.5
32.0
32.5

Fig. 359

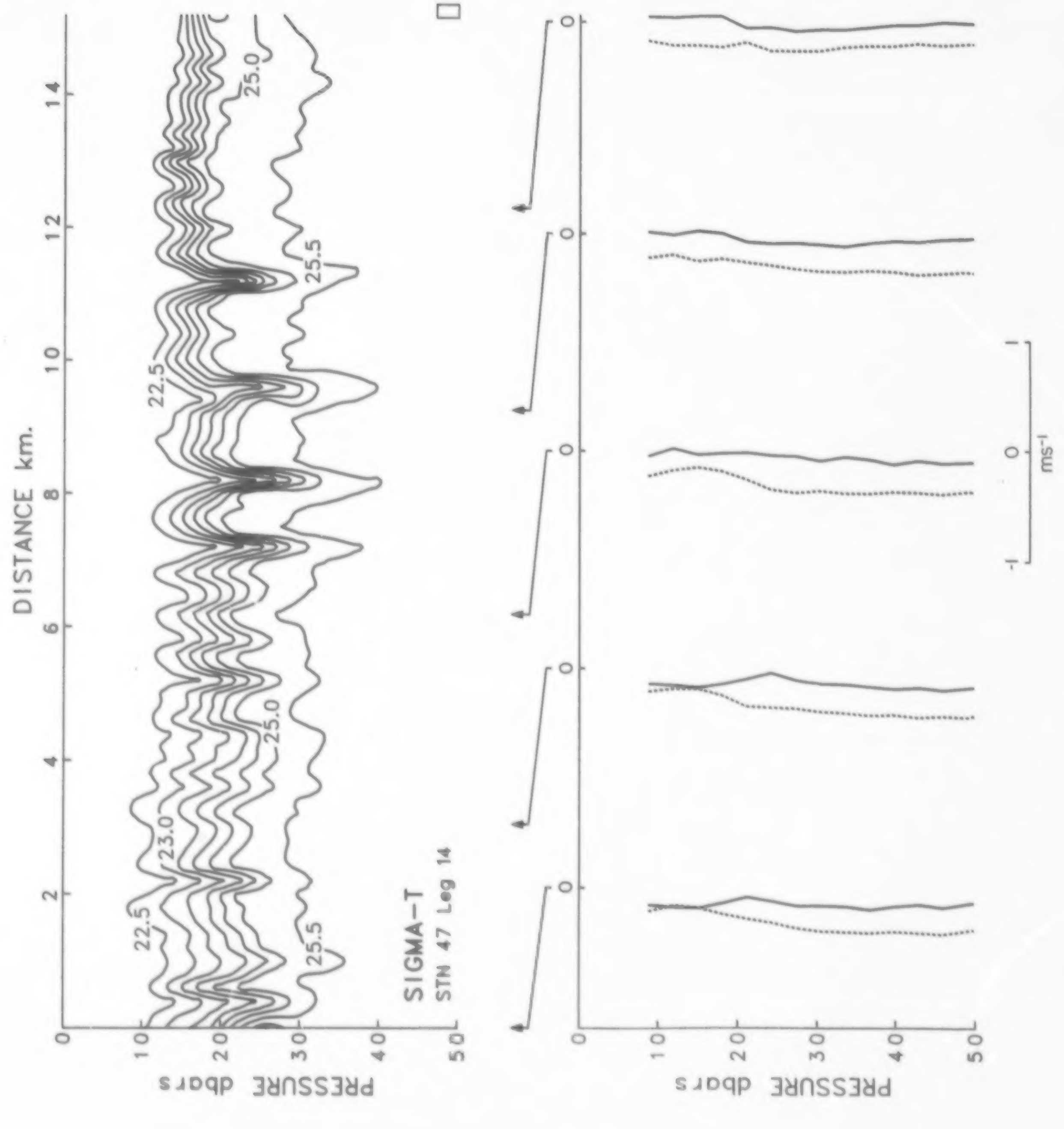

DISTANCE km.
0
2
4
6
8
10
12
14
PRESSURE dbars
0
10
20
30
40
50
22.5
23.0
25.0
25.5
SIGMA-T
STN 47 Leg 14
0
PRESSURE dbars
0
10
20
30
40
50
-1
0
1
ms-1

Fig. 360